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C & D

CHEMIST AND DRUGGIST

ESTABLISHED 1859

THE WEEKLY NEWSPAPER FOR PHARMACY and all sections of the drug, pharmaceutical, fine chemical, cosmetics, and allied industries

Official organ of the Pharmaceutical Society of Ireland and of the Pharmaceutical Society of Northern Ireland

Volume 186

December 31, 1966

No. 4533

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CHEMIST AND DRUGGIST

Volume 186

DECEMBER 31 1966

No. 4533

Lysergic Acid Diethylamide INTERNATIONAL CONTROL URGED

THE United Nations Commission on Narcotic Drugs on December 19 called on governments to take immediate action to control the import, export and production of the hallucinogenic drug LSD and similar substances.

It recommended that the use of LSD "and substances producing similar ill-effects, either immediately or readily by conversion" should be restricted to scientific research and medical purposes. The need for reinforcing national control on those drugs by international measures was emphasised in a report by a special committee.

Sulphonamides

A BROADCAST HISTORY

A HISTORY of the sulphonamides—their discovery, development and use—is recounted by Stephen Grenfell in "The Sulpha Drugs," a programme being broadcast in the B.B.C. Home Service on January 5, 1967. Among the contributors are Professor L. P. Garrod (formerly professor of bacteriology, St. Bartholomew's Hospital, London, and currently consultant in chemotherapy, Post-graduate Medical School of London); Mr. G. N. Henderson (Association of the British Pharmaceutical Industry); Dr. L. Colebrook (formerly director of research laboratories on puerperal fever, Queen Charlotte's Hospital), and Mr. A. Morrison (managing director, CIBA Laboratories, Ltd.).

Selling of Medicines

"FOCUS" SUPPORTS SOCIETY'S VIEW

THE statement by the Pharmaceutical Society's Council on the promotion of medicines (see *C. & D.*, October 22, p. 389) has gained the support of the Government - sponsored Consumer Council. The January 1967 issue of the Council's magazine *Focus* quotes from the statement the sections stressing the pharmacist's professional responsibility in selling medicines to the public, and recommending that pharmacists should give preference to products of manufacturers whose promotional methods were consistent with the views set out in the statement. "The Consumer Council supports these recommendations . . . In fact *Focus* understands there is considerable pressure among Pharmaceutical Society members to get 'patent' medicine advertising to the general public banned altogether.

This would mean that someone who wanted a cough mixture would have to go to a chemist and ask his advice on which product was best for their needs." The issue also contains an article by Dr. M. A. Phillips on the price of drugs. In his article Dr. Phillips (a director Southern Consultants, Ltd., Pesticides and Agricultural Developments, Ltd., and Chelsea Drug and Chemical Co., Ltd.) argues against earlier *Focus* articles by Professor A. Macgregor and Sir Derrick Dunlop.

Consulting Scientists

COLLEGES' ACTIVITIES CRITICISED

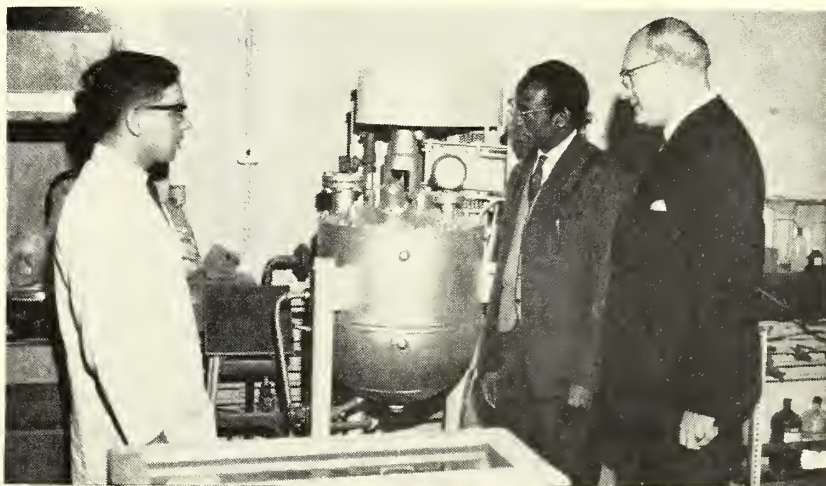
COMPETITION between subsidised laboratories and consulting scientists was the subject of criticism at the recent fourth assembly of the International Union of Independent Laboratories, organised by the Association of Consulting Scientists and held in Leamington Spa. Fifty consultants from Belgium, Denmark, France, Germany, Netherlands, U.S.A. and the United

Kingdom took part. Dr. H. H. Chambers, United Kingdom, criticised a Ministry of Education directive that encouraged staff of technical teaching establishments to engage in consulting work for industry. He stressed the serious threat posed by the growing consulting activities of universities and technical colleges, particularly when they involved expensive laboratory facilities and the employment of free student labour. Many colleges charged totally unrealistic fees, bearing little relation either to the value of the work done or to the cost of carrying it out, he claimed. The following officers were elected: *President*: Dr. H. Ph. Boddaert, Holland; *Vice-presidents*: Drs. H. Barent, United Kingdom and W. Fresenius, Germany; *Secretary-General*: Mr. A. Herzka, United Kingdom.

Brakes on Vehicles

STRICTER REQUIREMENTS FROM 1968

THE urgent necessity of checking the braking performance of vehicles is impressed upon all vehicle operators by the Traders Road Transport Association. The Motor Vehicles (Consolidated Construction and Uses) Regulations 1966 (H.M. Stationery Office, price 6s. 6d.) require that on and after January 1, 1968, all goods vehicles must be able to attain specified braking efficiencies. The Association points out that in many instances some



SEEING THINGS FOR HIMSELF: Mr. A. A. Egbah (pharmaceutical registrar and secretary of the Pharmacists Board of Nigeria), who was recently in England on a World Health Organisation fellowship, photographed during a visit to Eli Lilly & Co., Ltd., Basingstoke, Hants, in company with Dr. T. H. Whittet (deputy chief pharmacist, Ministry of Health). On the left is Mr. B. R. Barnes (manager of the company's control and development division).

modifications to braking systems may be necessary to attain the new standards and that, if plans are not put in hand immediately, operators may not be able to obtain the required parts in time. Heavy penalties may be imposed on owners whose vehicles do not satisfy the standards.

Ergotamine Production

STEP TOWARDS SUBMERGED CULTURE
ERGOTAMINE (a lysergic acid peptide) has been produced for the first time in submerged culture in shake flasks from a strain of *Claviceps purpurea*, according to the 1965-66 report of the Imperial College of Science and Technology, London. The biochemistry department of the College reports that yields of up to 1 mgm. per ml were obtained. Experiments to reproduce those yields in stirred fermenters are in progress.

Nielsen Drug Index

N.H.S. PAYMENTS AND TURNOVER

THE average weekly turnover obtained by retail pharmacists during September-October was £6,898,000, an increase of 3.6 per cent. over the corresponding period in 1965. The average weekly cash sales in retail pharmacies were:—Multiples, £454; large independents, £540; medium independents, £269; small independents, £133. It was estimated that the multiple pharmacies obtained 38.6 per cent. of the total turnover during the period whilst the large, medium and small independents obtained 12.7, 20.9 and 27.8 per cent. respectively. The average weekly National Health Service payments per shop were:—Large independents, £328; multiples, £224; medium independents, £194; small independents, £127. During September independent pharmacies dispensed 67.7 per cent. of the National Health Service prescriptions (an average of 1,402 per shop per month), whilst the multiple pharmacies dispensed 32.3 per cent. (an average of 1,906 per shop per month). National Health Service payments amounted to 31.0 per cent. of the total turnover in multiple pharmacies and 41.1 per cent. in independents.

National Research

WIDENING FIELDS FOR INVESTMENT

THE *Bulletin of the National Research Development Corporation*, December 1966, lists selected new inventions available for licensing, including an arterial blood-pressure recorder developed at the Newcastle upon Tyne general hospital and designed to meet the need for an apparatus that could be used by an operator single-handed in cases where puncture of an artery is justified. The device is non-electric, has no moving parts, and needs minimal adjustment. The Corporation is also taking an increasing interest in the flame-proofing of organic materials, the treatment of industrial effluents, and the applications of plasma and other high-temperature systems, and invites information from firms with inventions or ideas for innovation in those fields that might qualify for financial support from the Corporation.

Billingham Explosion

NEW AMMONIA PLANT AFFECTED

AN explosion at a new ammonia plant of Imperial Chemical Industries, Ltd., at Billingham, co. Durham, on December 14, was reported to have damaged only a small part of the plant. The plant was later shut down. The explosion was followed by a fire, which took an hour to control. Three men were admitted to hospital with minor burns. The plant, one of three being built at Billingham to increase ammonia production, had just finished its "running in" trials.

Photographic Sales

INCREASED SALES IN SECOND QUARTER

IN the second quarter of 1966 the total value of manufacturers' deliveries of photographic goods showed an increase of 12 per cent. over the corresponding period of 1965. Home deliveries were 13 per cent. and exports 11 per cent. higher. Total deliveries at £26,771,000 were the highest ever recorded. Giving the information the Board of Trade's Business Monitor states that, for the home market, sensitised materials, especially all types of film, showed a continuing rise over the corresponding period of 1965. Substantial increases were recorded in deliveries of cine cameras, but those of miniature cameras were again lower. Standard cine projector sales increased by more than 50 per cent. but other cine projectors were well down. Deliveries of image projectors and other photographic apparatus showed some increase, and other cine apparatus doubled.

Import Duties

EXEMPTION FOR CERTAIN CHEMICALS

THE Treasury has made the Import Duties (Temporary Exemptions) (No. 7) Order, 1966, which includes a new list of goods (mainly chemicals) which are temporarily exempted from import duty until December 30, 1967, unless a shorter period is indicated against any item. Photographic film base of cellulose acetate is partially exempt from import duty until that date. The definitions of some of the chemicals, for which temporary exemption from import duty is continued for a further period in 1967, have been amended to take account of the revised system of chemical nomenclature in British Standard 2474:1965 and of new approved names. The Order comes into operation on December 31, and has been published as S.I. 1966 No. 1566 (H.M. Stationery Office, price 4s.). The Import Duties (General) (No. 11) Order 1966, consolidates as at December 31, the Import Duties (General) (No. 10) Order 1964 and the various Orders amending it. Among other things it also eliminates the remaining import duty on a wide range of goods of E.F.T.A. origin; provides for the removal of the import duty on (among others) mustard seed of E.F.T.A. origin; and incorporates changes in the names of certain chemicals. Copies of the Order cost 22s. 6d.

IRISH NEWS

THE NORTH

Ulster Chemists

PRESIDENTIAL DINNER

AT the annual presidential dinner of the Ulster Chemists' Association held in Belfast on December 14, about sixty guests were welcomed by the new president (Mr. T. I. O'Rourke). The toast "The President" was proposed by Mr. J. C. Wellwood, who spoke of Mr. O'Rourke's enthusiasm and energy in everything he took up. Mr. O'Rourke had, for example, been president of South Antrim Gaelic Athletic Association for thirteen years. All U.C.A. members would feel confident that the future of the Association was safe in his hands. Replying, Mr. O'Rourke said he hoped to uphold the dignity of the office. He paid tribute to his vice-president (Mr. J. Knox) and the office staff, and thanked Miss A. E. Strachan (former secretary) for her continuing interest in the Association. In the rapidly changing world of pharmacy, he said, the U.C.A. had prepared itself to meet the problems of both the present and the future, and he intended to take his full share of the work involved. Mr. J. A. Brown proposed the toast to the immediate past-president (Mr. J. K. McGregor), who had put in a hard year's work in the interests of the profession. Mr. McGregor had given her husband support and encouragement, and her friendliness, warmth and charm had endeared her to everyone. Mr. McGregor thanked Mr. Brown and the committee for their help during his term of office. He believed that the year ahead would be one of continuing progress. "The Guests" was proposed by Mr. T. S. Purce, and replied to by Mr. A. T. Hardy (president, Pharmaceutical Society of Northern Ireland).

THE REPUBLIC

Pharmacy Act, 1962

WHY SECTION 2 IS DELAYED

THE Minister for Health (Mr. Flanagan) told Mr. R. Ryan (F.G.) in the *Dail* on November 17 that he was aware of the disappointment among pharmacists at the delay in bringing into operation section 2 of the Pharmacy Act, 1962. Discussions had been held with the Society, but it was not practical to bring the section into operation until regulations had been made under section 14 of the Poisons Act, 1961. *Comhairle na Nímhéanua* (the Poisons Council) had been consulted and recommendations for comprehensive regulations (in regard to section 14) had been received from that body. The recommendations, which were complex and far-reaching, were being examined by his Department, which was at present in consultation with the *Comhairle* about them. When the regulations were made, section 2 of the Pharmacy Act, 1962 would be brought into operation.

IRISH BREVITIES

THE REPUBLIC

IN the new shopping centre at Stillorgan, co. Dublin, branch pharmacies

have been opened by Roches' chemists, O'Connell Street, Dublin, and by Mr. Frank Murray, South Circular Road, Dublin. Skerries' Pharmaceutical, Ltd., have opened at Strand Street, Skerries, co. Dublin. The County Pharmacy, Ltd., North Main Street, Cork; Evans' pharmacy, St. Stephen's Green, Dublin; the pharmacy of Eric Massey, Ltd., Harcourt Street, Dublin, and the pharmacy of Padraig O Mathhumhna, Cashel, have closed.

MORE than fifty pharmacists and doctors attended a symposium dealing with the poisons and control of sale regulations in Athlone on December 11. Organised by the Midland Pharmaceutical Federation, the symposium was presided over by Mr. A. Gleeson, M.P.S.I. (chairman of the Federation). Speakers were Messrs. D. J. Kennelly (a member of the Pharmaceutical Society of Ireland Council) and J. G. Coleman (registrar).

NEWS IN BRIEF

ACETORPHINE and etorphine have been added to Part I of the Schedule to the Dangerous Drugs Act by the Dangerous Drugs Act 1965 (Modification) (No. 2) Order 1966 on January 9, 1967.

A PIECE of rock thrown through the pharmacy window of Mr. P. J. Brown, 66 Fortune Green Road, London, N.W.6, on December 18, caused considerable damage to Christmas stock on display.

Two new advisory leaflets published by the Ministry of Agriculture, Fisheries and Food are:—No. 422 Use of Chemicals for Hand Cleansing of Farm Dairy Equipment and No. 545 Potato Gangarene (H.M. Stationery Office, price fourpence each).

PRODUCTS accepted in November for the Design Index of the Council of Industrial Design, 28 Haymarket, London, S.W.1, included a portable transparency slide projector (model Rank Duo-Scope) of Lloyd Optical Products, Ltd., 52 Jermyn Street, London, S.W.1.

THE Medical Research Council's atheroma research unit at Glasgow Western Infirmary is being reconstituted to undertake a programme of research on hypertension and kidney disease. Dr. A. F. Lever (St. Mary's Hospital Medical School, London) has been appointed director.

THE National Health Service (Superannuation) (Amendment) Regulations, 1966 and the National Health Service (Superannuation (Scotland) Amendment) Regulations, 1966 (H.M. Stationery Office, price 3s. 6d. each) introduce a revised basis for calculating the superannuation benefits payable to doctors, dentists and part-time hospital specialist and other part-time officers.

THE Industrial Development (Variation of Rate of Grant) Order, 1966 (H.M. Stationery Office, price five-pence) increases the standard rate of investment grant from 20 per cent. to 25 per cent. and the rate of grant on development area expenditure from 40 per cent. to 45 per cent. in respect of eligible expenditure incurred between January 1, 1967 and December 31, 1968. The order was effective from December 30.

TOPICAL REFLECTIONS

By Xrayser

In for a Penny

At the time these words are read — but that, as an opening statement will not do. The death of one year and the birth of another is a sombre moment in which one should, above all things, observe a due sense of modesty. I should, therefore, begin by saying, at the time these words *could* be read (for I realise that it is just possible that those who normally read this column may be occupied with reflections of a retrospective rather than topical description as the year draws to a close) I shall, in all probability, be engaged in the melancholy task of making resolutions for the New Year. I am not certain that "task" is the correct word, for the list, from long habit, writes itself, if with less buoyancy and hope than in earlier years. But I find that, as time passes, the order of precedence in the resolutions has undergone considerable alteration, and in recent years a new item has made its appearance. It is now at the top of the list, and it says (as befits the outlook of an elderly gentleman who is reluctant to face the fact) "I must learn to accept change gracefully." And the older I become, the more I am forced to the realisation that that is the most difficult resolution of all to keep. Just at the point at which I had been steeling myself to wrestle with it once more, in the spirit of St. George and the dragon, I am thrown into complete despair by the announcement that we are to have a decimal currency! I have no doubt that there may be some good reason for its adoption, for I have observed that, if I count the thumb as a finger, I carry around with me a convenient and cheap comptometer. But why should the fates have decreed that the transition to a metric system of weights and measures and to a decimal currency should take place in *my* lifetime? I am faced, consequently, with the physician who prescribes in dozens when things packed in tens, or in tens when they are packed in dozens. And so, you see, the resolution that heads my list has already gone by the board. Perhaps it is not so much the fear of change as of *wrong* change that worries me.

Superintendents

It appears, from the report of the December meeting of the Council of the Pharmaceutical Society (p. 588), that the Council is concerned in the matter of the exercise of the duties of pharmaceutical superintendents of corporate bodies. I should not have thought that there was any need for anxiety so far as the large organisations are concerned, but in late years pharmacy has come to be regarded as a fruitful field for investment by people whose sole interest in pharmacy is to make use of it for financial return. The law of the land, unfortunately, does not demand that a pharmacy should be owned personally by a pharmacist, but merely that, where pharmacy is conducted, there shall be a pharmacist. The professional qualification that makes the whole thing possible is therefore liable to be exploited, for it is scarcely to be expected that a person with no pharmaceutical background is in a position to appreciate to the full the special character of pharmacy and its professional responsibilities. But it remains the duty of the pharmaceutical superintendent to carry out his professional task in strict accordance with the law, his knowledge and his understanding, and he must be prepared at all times to withstand pressures opposed to his professional conscience and his own standards. Never was he in a stronger position to assert his complete authority in his own field.

Quinine

I find it almost incredible that quinine should be considered a suitable candidate for inclusion in the Poisons List, yet there appears to be evidence of considerable misuse in certain directions. Pharmacists have long been aware of such intended misuse, and I imagine that most have made discreet inquiries of the intending purchaser before making a sale. If legislation makes quinine exclusively the province of the pharmacist, the need for satisfying himself of its intended use will be intensified. That will afford him the opportunity of demonstrating his right to the exclusive sale of all drugs.

DOCTOR-PHARMACIST RELATIONSHIP

Joint meeting at Harrow

DOCTORS and pharmacists at Harrow discussed mutual problems at a joint meeting in Harrow on December 6.

DR. H. T. FOOT, as a general practitioner said he would welcome the adoption of typewritten labels on medicines. Though personally he had no major fault to find with the services pharmacists provided, he had been given some points to raise. One was that legibility was more important in instructions to patients than legibility to pharmacists, since the pharmacist could always telephone the doctor. Pharmacists had rescued many doctors by spotting prescribed overdoses. Changed prescribing habits had not diminished the importance of the pharmacist's rôle since there were new dangers from interactions between modern drugs, especially when anaesthetics had to be administered. He thought new hormone preparations were being sold without prescription and called for a "more responsible attitude to such sales and to sales of products containing ephedrine." He asked that the doctor should be told when a patient failed to collect his medicine. He was given to understand that sometimes, because of a shortage of stock, only part of the prescription was filled, the patient failing to call back for the remainder; it was important to the doctor particularly when the product was an antibiotic, that he should know that only part of the medicine had been taken. He sought guidance on the metric dose system. How many mils were there for example, in a household teaspoon? Could not the local pharmacists establish, too, a poisons information centre along the line of that, at Guy's Hospital? Did pharmacists, he asked, see the responsibility for providing medicines outside present hours as lying with local pharmacists, a local hospital or — further ahead — a health centre?

Impromptu Answers

MR. KEITH JENKINS (a member of the Society's Council) abandoned his prepared script in order to concentrate on answering the queries raised by Dr. Foot. If local doctors asked him to type labels he thought he would indulge in "a mild form of blackmail" by promising to do so if they began typing their prescription forms. Today, when so many medicines had similar names, bad writing was potentially dangerous. As to hormone preparations he reminded the doctor that they were now schedule-4 poisons and not to be sold without a prescription. Any doctor who heard of an illegal sale should get in touch with the Pharmaceutical Society, who would send an inspector along. Ephedrine-containing preparations presented a difficulty since legislation was a slow process, but the Society's policy was that ethics should precede legislation. Patients could procure 5-mil spoons and measures for doses in metric. For the rapid identification of tablets, there was the CHEMIST AND DRUGGIST Tablet and Capsule Identification Guide and he advised any doctor with problems over medicines to "pop into their nearby

chemist once a week for a chat." That would also provide an opportunity to attend to any prescriptions requiring his signature.

Giving the hospital pharmacists' viewpoint MR. G. BRYAN (chief pharmacist, Middlesex Hospital), said that while today most of the "concocting" was done by the manufacturer the pharmacist had as important a part to play as formerly. He was the authority on drugs and must keep a catalogued file of literature and a library of reference books. The pharmacist today needed to know more about the harmful effects of drugs. Mr. Bryan said he would oppose the suggestion that all dispensing should be done by technicians.

There was also, in hospitals, a place for the pharmacist on the wards, as in the scheme already tried out in Aberdeen. His presence at the time of prescribing would eliminate "many of the monstrosities that currently arrive in the pharmacy department for dispensing."

DR. GRENVILLE MATHERS (consultant physician, Hendon group of hospitals) stressed the dangers of having similar names for very different drugs. Manufacturers' "omnibus" preparations often masked the patient's symptoms and made the condition difficult to diagnose. "Substitution" could put patients' lives at risk. He had one unfortunate experience from a patient's being given a substitute that had not the same

effect as the drug prescribed. What were the pharmacists' views or instructions on this problem? He had found that sometimes, when "N.P." was noted on a script, the instruction was ignored. He would prefer the name of the product in most cases to be given so that the nurse or locum doctor could be aware of the treatment when called to a patient.

MR. JENKINS replied that so far as retail was concerned no substitution was made unless the prescriber first agreed to it. MR. G. RAINE (branch chairman) said, amid laughter, he preferred the term "dispensing the equivalent" to "substitution." From the floor DR. S. LINDSAY asked if all representatives of manufacturers could not be pharmacists. He said he was reluctant to interview unqualified men who had "learned their sales talk parrot-wise." MR. N. YATES, a pharmacist representative, hoped the doctor would continue to press the point, but MR. JENKINS said that a resolution had been before the Society's Council along those lines, but there were not enough pharmacists to go round. DR. A. S. R. PEFFERS (deputy medical director, British Overseas Airways Corporation), in proposing a vote of thanks to the speakers said he was astounded at the number of items that had to be carried in stock. In his department there were over 3,000 different medicinal preparations.

The meeting was jointly chaired by Dr. W. Knapman for the doctors and Mr. Raine for the pharmacists.

IRISH PHARMACY STUDENTS

"Lack of interest" deplored at annual meeting

LACK of support by students for lectures presented during the Irish Pharmaceutical Congress was deplored by the outgoing president of the Irish Pharmaceutical Students' Association (MR. D. HICKEY) at the Association's annual meeting in the College of Pharmacy, Dublin, on November 11. The president had earlier described the attendance of students at the Association's annual ball, 1965, as "sparse and disappointing" but had added "Whereas poor student participation in social events can be somewhat condoned, their apparent lack of interest in the scientific and practical aspects of pharmacy does not augur well for the future."

The president announced that a "mini" conference it was hoped to organise on February 10-14, 1967, would comprise a symposium on a topic of general interest and some social activities, terminating with the annual ball at Dublin airport. European-based students from Australia and South Africa, and students from Belfast, were expected to be present. The undertaking would need students' full co-operation. Since the 1965 International Pharmaceutical Students' Federation congress in Bray, an ever-increasing contact had been established with the Society of Pharmaceutical Students in Belfast. At the 1966 congress in Vienna discussions between representatives of the two bodies had led to the idea of an all-Ireland Phar-

maceutical Students' Federation, and a formal proposal for the establishment of such a body was expected shortly from Belfast. Mr. Hickey asked for full support for the incoming Council in any formal negotiations on the form of the new organisation.

In her annual report as I.P.S.F. liaison secretary MISS ORLA COSTELLO, said it was surprising how many Irish students and young pharmacists were unaware of the educational value of the Federation's student-exchange scheme. Students or recent graduates might work in a foreign pharmacy for from one to three months. They gained an insight into a type of pharmacy different from their own. Five pharmacists in Ireland had offered positions to visiting students but, owing to lack of student applications, not all the invitations could be availed of. Of four Irish students who had accepted places abroad, two had withdrawn at short notice.

Miss Costello and Miss Mary Power reported the Irish delegates' visit to the Vienna congress. They stressed that, if Ireland should ever be chosen as a donor country in connection with the Drug Appeal (under which medical supplies are provided for the treatment of sick students in the under-privileged areas or South-east Asia and South America) the Association should be prepared to co-operate to the full with the medical students and Irish W.U.S. Committee.

Pharmaceutical Society's High Court Appeal

Continued from THE CHEMIST AND DRUGGIST, December 24, p. 604

DURING the hearing on December 19 Mr. N. N. MCKINNON (Counsel for the Pharmaceutical Society) said that the Society's case started from the declaration that, when the motion was passed, the Society would take all steps to enforce the provisions as if the motion were contained in the Statement upon Matters of Professional conduct. The statement was binding in honour upon members. It had no compulsive force of itself and was not itself justiciable.

The Society submitted that it was necessary to look at the character of the profession and the nature of professional practice. If there were complete freedom without any restraints—"the absence of restraint is the negation of professional standards"—there was inevitably a conflict between, on the one hand, great financial interests that were activated solely by the profit motive and, on the other hand, the profession with its tradition of ethical standards, honour and dedication to a sense of duty, and notions of misconduct that had no place in the world of big business. If the appeal failed, and trade triumphed, then pharmacists would become absorbed in large general stores or businesses and they would survive only so long as they satisfied trade or financial tests. In other words: were pharmaceutical departments as profitable as the rest of the business? If not they would be discontinued and the space used to sell "rock 'n roll records or jeans" if those should be more profitable. Pharmacists would simply become a means of attracting trade. From beginning to end the conceptions of viability and finance had been introduced into the case by the Boots organisation, which was not a party to the action.

Where an Argument Leads

LORD DENNING: You say that you are going to lose all the chemists in the big stores and the departments will be shut down, but if you apply the statement to all professional pharmacists you lose them too, because they cannot pay their way.

MR. MCKINNON: Of course that argument leads to nurses stoking boilers in their off-duty hours because they are not earning enough from nursing; not only do they have to stoke boilers in their off-duty hours but they have to take a hand emptying dustbins as well—it is an awful pity but they do not earn enough to live on from their nursing salaries. It leads to this, that if pharmacists, with their high qualifications, are not being paid enough, then there is something wrong with this society.

LORD JUSTICE DANCKWERTS: I suppose Boots started with drugs, did they not? They called themselves Boots Cash Chemists?—Yes, they started entirely with drugs.

LORD DENNING: I suppose they went into the traditional, and then they went from the traditional into everything?—Yes, they became a big public company and now, under the pressure of

shareholders they have to return the biggest dividends they can. Capital knows no loyalty, and capital knows no ethical standards.

MR. R. PARKER: At this stage I would respectfully object. If an attack is being made on Boots it must be established by evidence that their pharmaceutical standards and conduct are lower than anybody else's, and that was not established. It is, in fact, I think, in the learned Judge's findings that there is no evidence that there is any lack of proper standards in Boots.

LORD JUSTICE DANCKWERTS: My question was intended to be purely historical.

MR. R. PARKER: I agree, but I have heard so much in the last ten minutes about commercial interests, big business and so on that I say if it is an attack on Boots, then let my friend, if he wants to make it, establish it by the evidence, and let him look at the judgment and ask your Lordships to look at the judgment.

Not Parties to the Action

MR. MCKINNON retorted that if Mr. Parker was appearing for Boots it was interesting, but Boots were not parties to the action. If Mr. Parker was suggesting that the company of which his client was a director was not interested in getting for its shareholders the highest dividend it could, then it would appear, as it was a public company, that the directors were in breach of their duty to shareholders. Mr. McKinnon gave an assurance that he was not attacking the Boots organisation but simply contending that the professions were going to get into a muddle if every rule of conduct had to be tested in the way that had been suggested.

Continuing his argument Mr. McKinnon said that existing pharmacies would not be touched by the motion, but it would prevent a store from expanding more and more. It would tend to require that a pharmacy should be shut off from the rest of the trading activities. How the rest of the store was run did not matter if it was departmentalised completely, with a separate access from the street. He referred to the Boots organisation's inability, on security grounds, to undertake rota duties in its main store at Guildford, providing rota service at a smaller branch in the town.

As to the employment of inspectors, the Society's view was that to employ inspectors to report upon instances of possible misconduct of pharmacists, and to guide them, by means of the Statement on Professional Conduct, was reasonably incidental to the Society's statutory duty.

A statutory tribunal with a legally qualified person was very different from a purely domestic tribunal with no overriding jurisdiction either by the court or by Judges. Nothing that the Society intended to do with a view to securing compliance with the proposed rule made it a restraint of trade, Rules

of professional conduct belonged to a class of engagements that were wholly unenforceable as such, and for that reason no such rule had been challenged in that way. It had been said that the motion was arbitrary and capricious. It was arbitrary only because it picked on certain goods that had been traditionally pharmaceutical and excluded others. Traditional goods were those which had always been associated with the practice of pharmacy. All that one could do, when trying to improve the status of the profession, was to accept that there might be something that was anomalous. It was a matter of opinion whether the number of pharmacies available to the public might or might not be reduced. If there was a public need for pharmacies, the pharmacies would be there. Pharmacies might disappear if the large interests engulfed the smaller pharmacies. To say that it would make pharmacies less viable and remove good remuneration and career prospects, which attracted new members, was to put a purely financial or commercial test. The situation should be compared with a young barrister losing the chance of being a tycoon in the City, "or something of that sort". Either persons wanted to be pharmacists or barristers or solicitors or doctors, or, if they wanted to be big businessmen, they could . . . but they could not be both in the same place. It could not be contrary to public interest that the cobbler should stick to his last. No member of the public had been called to say that he was the least perturbed because he could get anti-freeze, which was made of ingredients properly provided by a chemist, and nobody had complained that Boots could sell it, yet he could not get from them a spare radiator or a spare tyre for his car. He rejected the suggestion that the motion would amount to an arbitrary licensing system. The motion was based on a clear and logical distinction between conduct that was by tradition and agreement associated with pharmacy and conduct which was not.

Plaintiff's Case

The plaintiff's case was that the employment of an additional pharmacist could solve the problem of a large shop. Something must be done to deal with the wastage of pharmacist manpower and the increasing shortage of new recruits to the profession. It was outrageous to suggest that the canons of professional conduct were such that all that had to be done was to comply with the law relating to the man in the street.

It had been put to Mr. Bloomfield—and much had been made of it—that he would rather go bankrupt than take on additional lines. A code of professional conduct was not worth the paper it was written on if somebody was not prepared to stand by it, and that was all that Mr. Bloomfield could be taken to mean by what he said. It

was not that he was going to see the public interest suffer, but rather that, in his view, it would be to the detriment of the public interest if he and other pharmacists had to go into trade in the true sense. It might well be that a smaller number of better and larger and pharmacologically more efficient pharmacies would be in the public interest. There was no evidence that pharmacists had gone out of pharmacy—merely that pharmacies had closed.

It was inevitable that a profession like pharmacy, and indeed most professions, would sooner or later come into conflict with one or other of the larger financial interests. It could not be helped, but the real test was the public interest. Paragraph 3 of the Statement upon Matters of Professional Conduct said that the appearance of the premises should reflect the professional character of the pharmacy: it should be clear to the public that the practice of pharmacy was the

main purpose of the establishment. The motion was designed to carry that principle into effect. If the motion was to be knocked out, then paragraph 3 must also go, otherwise how could it be said that the appearance of premises was reflecting the character of the pharmacy. "If we are going to have these American-type emporia with a little pharmacy in the corner, paragraph 3 is going to be rendered nugatory and purposeless."

It was essential that the Appeal Court should recognise the importance of professions to the community, and it should not be held that professional rules were subject to ordinary trade rules, which required only to be valid so long as they actually served the pecuniary interests of one or other of the parties to a contract.

In Mr. McKinnon's submission ethical standards were of the utmost importance to the public life of the country. Judgment was reserved. (C. & D., December 24, p. 593).

IN PARLIAMENT

BY A MEMBER OF THE PRESS GALLERY, HOUSE OF COMMONS

THE Minister of Health was asked by Mr. A. Woodburn whether the committee on new drugs had investigated the drug from the *Ginkgo biloba* tree which it was claimed was "beneficial to circulation and to be efficacious in catarrhal and bronchial affections, for researches into which Dr. Volkner was awarded the Willmar Swabe prize in Germany." Mr. KENNETH ROBINSON (Minister of Health) in a written answer on December 19 replied "Not so far as I am aware."

Transport of Inflammable Substances

In the House of Lords on December 20 LORD BOWLES told LORD FARINGDON that draft orders had been prepared dealing with the conveyance by road of more than 200 dangerous inflammable liquids having a flash-point below 73°F. The Orders provided for the labelling of vehicles and containers and other safety precautions and had been circulated to the Standing Advisory Committee on Dangerous Substances and other interested bodies. Subject to comments received, the Orders were expected to come into force "in the New Year."

Patent Law

LORD CAWLEY in the House of Lords asked the Government whether it was intended to amend the patents law on prior claiming so as to prevent separate patents being granted for the same invention to numerous inventors, each of whom could demand royalties for the use of the invention. LORD R. LODES (Parliamentary Secretary, Board of Trade) in a written answer on December 21 said the President of the Board of Trade was aware that law on that point called for attention. A number of matters affecting patents demanded review and he hoped to carry that out before long.

Report on Infant Milk Foods

MR. GEORGE WALLACE asked the President of the Board of Trade whether he had received the report of

the Monopolies Commission on the supply of infant milk foods. MR. DOUGLAS JAY (President of the Board of Trade) replied in a written answer on December 21 "I received the Monopolies Commission's report on the supply of infant milk foods on December 14. It will be laid before Parliament and published as soon as possible."

MR. ALAN WILLIAMS asked the Home Secretary whether he would ensure that all police stations in the Metropolitan area kept an up-to-date rota of chemists available after normal trading hours for the handling of general practitioners' urgent prescriptions. MR. ROY JENKINS (Home Secretary) in a written reply on December 21 said "Arrangements are in force in the Metropolitan police district whereby the information provided for the police is made available to assist personal callers at police stations."

LEGAL REPORTS

Thought Restrictions Unimportant

THOUGH not present at the hearing, Mr. Kenneth Taylor, St. Helen's Gardens, London, W.10, was fined £10 with £26 5s. costs at Marylebone court on December 21 on two summonses (selling poison without authorisation, and not labelling the container of the poison with his name and address). The magistrate was told that the poison was adrenaline, sold in tablets under the name of Optabs. Though the shop in St. Helen's Gardens appeared to be a chemist's shop, Mr. Taylor was not a registered pharmacist. Giving evidence, a representative of the Pharmaceutical Society told the court that, on August 3, she had visited the defendant's shop and purchased some Optabs. After she had paid for them she had explained to Mr. Taylor who she was and the offence he had committed. Mr. Taylor had told her he thought the restrictions were unimportant. In a letter to the clerk of the court Mr. Taylor said he ran a one-man business

and was unable to attend because he would have to close his shop to do so. He knew that other eye treatments were used externally, but was not aware that Optabs were different.

Thief and Receiver

Two men who appeared on remand at North London magistrates' court on December 22, in connection with the theft of £200 worth of cosmetics, were each warned about their future conduct. They were Brian Fletcher, a laboratory assistant, London, N.16, who pleaded guilty to stealing the cosmetics over a long period from his employers, Newbery & Phillips, Ltd., Farleigh Road, London, N.16, and Lelio Cottelli, London, N.16, who admitted receiving the goods. At a previous hearing a police officer had said that Cottelli's vehicle was stopped on November 23 and that later a search was made of his home, where the property was found. Fletcher was said to have been stealing the cosmetics from the company for about two years. Cottelli, previously of good character, asked the court to take into consideration a further offence of receiving. He told the magistrate "The last three weeks which I have spent in prison has taught me a lesson. I guarantee that nothing like this will ever happen again." Fining Cottelli £20, the magistrate said: "If I thought for one moment you were what I call a professional receiver, you would be sent to prison for a very long time." Fletcher, also of previous good character, was placed on probation for two years and ordered to pay £15 15s. costs.

Guilty on Three Charges

OFFICERS from Scotland Yard who went to a Hackney Road address on November 23 armed with a search warrant, found 10 ampoules of morphine and a tin containing 875 Dexedrine tablets, it was stated at Old Street, London, justices' court on December 13. Before the court was Sidney Kenneth Dixon, London, E.9, who appeared on remand and pleaded guilty to charges of stealing and possessing the morphine without lawful authority and of stealing and possessing 875 Dexedrine tablets and other property together valued at £15, the property of St. Thomas' Hospital, London, S.E.1, by whom he was employed. He was also charged under the Drugs (Prevention of Misuse) Act 1964, with being in possession of the Dexedrine tablets. Dixon was sentenced to a fine of £75 or three months' imprisonment on the first charge and £50 or three (consecutive) months on the second charge. On the third charge the sentence was a fine of £25 or prison for three (concurrent) months. He was given six months in which to pay.

For the defendant it was said that the property was found at Dixon's home without difficulty and that he had been forthright with the police in saying he had obtained the drugs from the hospital. Old recovered medical supplies were kept prior to disposal in the store where Dixon worked. The chances were that the property Dixon

had in his possession had not been taken from the hospital's own supply but from drugs brought to the hospital for disposal. A police officer agreed that a considerable amount of stuff was taken into the hospital in that way to be destroyed.

COMPANY NEWS

Previous year's figures in parentheses

MUREX, LTD.—Mr. R. L. Ainsworth has been appointed a director.

IMPERIAL CHEMICAL INDUSTRIES, LTD.—Mr. Philip Howard, M.P.S., home market director, of the company's pharmaceutical division, is assuming responsibility for the division's publicity department also.

W. H. HOBBS & CO., LTD.—Mr. A. J. Plastow (managing director) who retires on December 31, will continue to hold office as chairman of the board. From January 1, 1967, Mr. C. G. Lammin takes over the office of managing director. Mr. Lammin joined the company in 1936, was appointed director in 1958, and has served on the sales side both at home and overseas.

B. D. H. GROUP, LTD.—Under an agreement signed on December 20, B.D.H. Group, Ltd., are purchasing for £277,000 a 50 per cent. share of the equity of Bookers Manufacturing Drug Co., Ltd., a company operating in Guyana, Trinidad and Jamaica. The partnership has been established to expand the companies' pharmaceutical and toiletry interests in the Caribbean market.

MORGAN BROTHERS (PUBLISHERS), LTD., and GRAMPIAN HOLDINGS, LTD.—Morgan Brothers (Publishers), Ltd. (proprietors of *THE CHEMIST AND DRUGGIST*) have acquired from Grampian Holdings, Ltd., for £325,000 in cash the entire share capital of Grampian Press, Ltd., and Commercial Exhibitions, Ltd. Grampian Press, Ltd., publish twelve technical journals (including the *Manufacturing Chemist and Aerosol News*).

BUSINESS CHANGES

CUTICURA LABORATORIES, LTD., is the new title adopted for Potter Drug and Chemical, Ltd. The company's address is also changed to Clivemont Road, Crowthorne Trading Estate, Maidenhead, Berks. (telephone: Maidenhead 30952).

RAY-O-VAC INTERNATIONAL CORPORATION are transferring their head office on January 1, 1967, to Westminster House, 97 St. Mary Street, Cardiff (telephone: Cardiff 42137). Their offices at Oxford Street, London and at Treorchy, Glamorgan, are being closed but production facilities will remain at Treorchy.

PERSONALITIES

MR. HARRY HALL, M.P.S., F.S.M.C., proprietor of Harwood & Hall, Ltd., High Street, Hampton Hill, Middlesex, has been appointed a magistrate for the Twickenham petty sessional division at Feltham court. A member of council of the London borough

of Richmond-upon-Thames, Mr. Hall has completed ten years in local government.

MR. J. M. GAMBLES, who has been appointed to the board of Alfred Pemberton, Ltd., joined the London advertising agency in 1964. He is the nephew of Mr. J. C. Gambles (founder of J. C. Gambles & Co., distributors of proprietary medicines and cosmetics until their merger with Chesebrough-Ponds in 1963). Mr. Gambles held the appointment of marketing director of Messrs. Gambles at the time of the merger.

MR. K. W. RICHARDSON, M.P.S. (director and secretary, E. Moss, Ltd.), retires on December 31. He joined the late Edgar Moss, M.P.S. in May 1930 as manager of his branch at Staines. He became one of the original directors when the business was converted into a company in 1934 and has served in that capacity ever since. Mr. Richardson has agreed to accept a consultancy appointment with the company.

MR. J. W. HADGRAFT, F.P.S., F.R.I.C., the recipient of the Harrison Memorial medal, 1966, is group pharmacist at the Royal Free Hospital, London. Besides his hospital experience he has held posts in industry, and has also engaged in editorial and committee work in connection



with the British Pharmaceutical Codex. He is currently a member of the Codex Revision, British Pharmacopoeia and Joint Formulary Committees. Despite his pharmaceutical work he has taken an active part in hospital pharmacists' salary negotiations since the start of the National Health Service.

MRS. M. A. SHACKLETON, an executive of the Chemists' Mutual Insurance Co., Ltd., has retired after forty-five years' service. It was in 1921, just prior to the formation of the Retail Pharmacists Union — as the National Pharmaceutical Union was first known — that Mrs. Shackleton, straight from school, joined the Central Checking Bureau at 17 Bloomsbury Square. Shortly after the N.P.U. had moved to its early home at Tavistock Square she began her life-long association with the then newly formed insurance department, C.M.I. Although Mrs. Shackleton's main expertise has been in the preparation of policies, for many years her skill in training new staff taken in as part of the post-war C.M.I. expansion programme has proved invaluable in maintaining the pool of specialised personnel necessary for handling the present heavy load of insurance business. On the day of her retirement (December 15), the secretary and manager (Mr. J. Wright) presented her with a carriage clock on behalf of the staff of the N.P.U. Group. And at

a social function on the following evening, the chairman of the N.P.U. (Mr. E. A. Brocklehurst), thanked Mrs. Shackleton for all her past services and presented her, on behalf of the directors of the Chemists' Mutual Insurance Co., Ltd., with a cheque in recognition of her long association with the organisation.

MARRIAGE

ELSON—FORTIN. — At St. Mary's Church, Sawston, Cambs, on December 10, Brian Malcolm, B.Pharm., 10 Parsons Green Lane, London, S.W.6, to Roma Fortin, B.Pharm., 16 Hillside, Sawston. Bride and bridegroom were students at Chelsea College of Science and Technology. They will be living at Lancing, Sussex.

DEATHS

BAXTER.—On December 9 Mr. Joseph Wilson Baxter, M.P.S., Holgate Pharmacy, Acomb Road Corner, York. Mr. Baxter qualified in 1921.

BEARMAN.—On December 7, Mr. Stanley Walter Bearman, F.P.S., 154 Greenford Road, Harrow, Middlesex. Mr. Bearman qualified in 1922.

BROWN.—On November 23, Mr. Albert Brown, M.P.S., 17 Farm Lane, Purley, Surrey. Mr. Brown qualified in 1937.

CAMERON.—Recently, Mr. Allan Cameron, M.P.S., c/o Orr, 48 Grant Street, Glasgow, C.3. Mr. Cameron qualified in 1926.

CHUTE. — Recently, Mrs. Helena Chute, M.P.S.I., The Mall, Tralee, Eire, widow of Mr. John Chute, M.P.S.I. Mrs. Chute, who qualified in 1921, had been conducting the family pharmacy at Tralee since her husband's death some years ago.

CORBY.—Recently, Mrs. Kathleen Corby (née Fitzpatrick), M.P.S.I., Ballacolla, Portlaoise, Eire. Mrs. Corby, who qualified in 1959, was managing the pharmacy of the late Mr. Michael Flynn, Rathdowney, Laois.

DAVIE.—On December 6, Mr. John Reginald Davie, M.P.S., of 124 Harrow Road, Wollaton Park, Nottingham. Mr. Davie qualified in 1920.

FISH.—On November 29, Mr. William Harold Fish, M.P.S., c/o East Rigg, Great Lumley, Chester-le-Street, co. Durham. Mr. Fish qualified in 1922.

HENNEMAN.—Recently, Mr. Isaac Henneman, F.P.S., Dorset Cottage, Lindsay Road, Branksome Park, Hants. Mr. Henneman qualified in 1914.

HOBBS.—Recently, Mr. Norman Frederick Charles Hobbs, M.P.S., 30 Southstoke Road, Combe Down, Somerset. Mr. Hobbs qualified in 1925.

HOFFMAN.—On November 25, Mr. Albert Hoffman, M.P.S., 8 St. Isan Road, Heath, Cardiff, Glam. Mr. Hoffman qualified in 1942.

JONES. — On December 12, Mr. Harold Francis Howard Jones, M.P.S., 10 Park Street, Minehead, Somerset. Mr. Jones qualified in 1923.

LEE. — In a Southport, Lancs., nursing home on December 17, Mr.



William Lee, M.P.S., for many years a director of Boots, Ltd., aged eighty-six. Mr. Lee qualified in 1903 and in the same year joined the Boots organisation. After managing branches in Nottingham and Southwell he was

appointed a general manager in 1921. In 1932 he took over control of the pharmaceutical side of the business and retired from the company in 1940. Mr. Lee was responsible for introducing the company's apprentice training scheme. He took a prominent part in pharmaceutical administration, serving on the former Central National Health Industries Committee, the War Emergency Committee of the Pharmaceutical Society, the Nottingham Pharmaceutical Committee and the Nottingham Insurance Committee. He served terms as chairman of the Nottingham and District Branch of the Pharmaceutical Society and of the pharmaceutical advisory committee, University of Nottingham.

MONAGHAN. — Recently, Mr. Denis Peter Monaghan, M.P.S., The Broadway, Crowborough, Sussex. Mr. Monaghan qualified in 1936.

RICHARDS. — On December 5, Mr. William Idris Richards, M.P.S., 60 Warwick Road, London, W.5. Mr. Richards qualified in 1934.

WEBSTER. — On December 8, Mr. William Ernest Webster, M.P.S., 33 Henconner Lane, Leeds, 7. Mr. Webster qualified in 1937.

DECIMAL CURRENCY

Government holds firm to the £1 unit

MR. GORDON CAMPBELL initiated a debate on decimal currency in the House of Commons on December 21. He asked the Chancellor of the Exchequer to give an assurance that no action had been taken that would prejudice the decision between the two systems using the £1 and 10s. units, and that no action would be taken to prejudice the matter before Parliament had fully debated it. He claimed it was clear that the "international argument" supporting the £1 unit now had "less weight" than had originally been given to it. The minority report of the Halsbury Committee contained cogent arguments supporting the 10s. unit that had not yet been answered.

The £-cent-half-system involved a fraction and there were three units instead of two. The Halsbury Committee found that, in 1962, no less than 40 per cent. of prices would involve a fraction. Mr. Campbell said the percentage was "still broadly the same," and 800 million transactions a week would involve a fraction. At present the halfpenny was concerned in about 11 per cent. of transactions. Under the 10s. system there would be fewer new coins. "No wonder organisations representing consumers, and retail and dis-

WYCH. — On December 5, Mr. Thomas Arthur Wych, M.P.S., c/o The Hostel, Brentwood Avenue, Town End Farm, Sunderland, co. Durham. Mr. Wych qualified in 1920.

EXPANSION PROJECTS

A NEW automated installation to produce a wide range of modified starches is now in operation at the Battersea, riverside factory of Garton, Sons & Co., Ltd., a member of the Manbre group of companies. This installation substantially increases Garton's capacity to produce specialised starches and derivatives including specialities previously imported from the United States and now made under licence from the National Starch and Chemical Co. of America.

£100,000 LAUNCH FOR A SOFTER TISSUE

Bid to capture enlarged market for facials

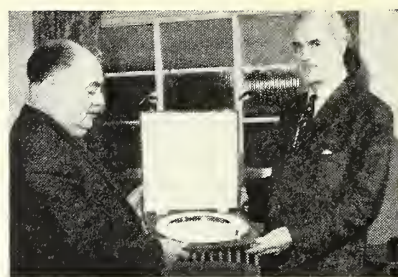


"Regular" packs of 150 and 100 new silk soft Kleenex. At right: "Handy" packs of 150 and 72.

THE biggest ever advertising campaign to launch a consumer paper product in Great Britain is being launched in January 1967 by Kimberly-Clark,

Ltd., Larkfield, nr. Maidstone, Kent. Over a three month period the promotional campaign will cost more than £100,000. The product that is being advertised on that unprecedented scale is a new "silk-soft" Kleenex that will supersede the present Kleenex regular and handy tissues in the "quadrant" pack. Potential capacity of the market is valued by Messrs. Kimberly-Clark at £10 million a year. Their market research has convinced the company that consumers now demand tissues for specific uses. For cosmetic uses the characteristic ranked highest in importance is softness, and in test marketings "silk-soft" Kleenex was voted better than any competitive tissue — "twice as good on softness and over twice as good on silkiness". The improvement has been achieved through changes in the production process. One side of a tissue is softened and smoothed, leaving the other spongy and fibrous. The other (fibrous) side is placed against the fibrous side of another tissue to form a product that is two-ply, "ultra-smooth," measurably softer to the skin, yet tough and absorbent.

"Silk-soft" Kleenex is being produced in white (in blue carton) pink (in pink carton) and yellow (in yellow carton). The pack has been designed to look good on the dressing table yet to catch the eye in displays in shops. The "grab" has an opening that enables the tissues to be taken out from the top or from the side, either one or more than one at a time. In the



FAREWELL PRESENTATION: On his retirement as managing director of Maws Pharmacy Supplies, Ltd., Barnet, Herts, the staff presented Mr. David Jaffray Maw with an inscribed silver salver, cut-glass sherry decanter and six glasses and a quantity of sherry to go with them. In the picture Mr. Douglas W. Harris, presents the salver to Mr. Maw.

100 and "handy" packs the Kleenex "pop-up" feature has been retained.

Most of the advertising budget is allocated to television, with a 30-sec. "commercial" driving home the message that Kleenex tissues are "gentlest of all to the skin." Large spaces are also booked in *Family Circle*. Point-of-purchase material reinforces the advertising theme. To popularise the new product quickly 200,000 packs are being given away free in return for two tear-out strips incorporated on Kleenex-for-men and new "silk-soft" Kleenex packs.

TRADE NOTES

Discontinued.—Dista Products, Ltd., Speke, Liverpool, 24, are discontinuing from December 31 the issue of Tytagel anti-histamine jelly in tube of 20 gm.

Change of Labelling.—Carlo Erba (U.K.), Ltd., 28 Great Peter Street, London, S.W.1, state that Ginetriss pessaries are in future being labelled vaginal tablets. There is no change in formulation.

New Agents.—The special cosmetics of Merz & Co., Frankfurt on Main, Germany (Placentubex, Placentubex-C and Sevilan products), are now available from David Harvey & Co., Ltd., 107 Great Eastern Street, London, E.C.2.

New Distributors Appointed.—Effective January 2, 1967, Fassett & Johnson, Ltd., Oxford Works, Worsley Bridge Road, London, S.E.26, have been appointed sole distributors to wholesale and retail chemists of Rosedale counter products.

An Additional Strength.—Smith Kline & French Laboratories, Ltd., Welwyn Garden City, Herts, are introducing on January 2 a 10-mgm. Stelazine Spansule capsule (additional to the present 15-mgm. capsule).

Chemicals and Antibiotics.—Rhône-Poulenc, S.A., Paris, France, offer a range of alkaloids, pharmaceutical chemicals and antibiotics through importers and distributors in various countries. The United Kingdom distributors are R. W. Greeff & Co., Ltd., 31 Gresham Street, London, E.C.2.

Withdrawn.—Imperial Chemical Industries, Ltd., pharmaceutical division, P.O. Box 25 Alderley Park, Macclesfield, Cheshire, state that Coomassie blue injection is being withdrawn and that no further supplies are available. Glyped cream is also being withdrawn on December 31. Wholesalers with excess stocks should return them for credit to the division warehouse, Hurdsfield Industrial Estate, Macclesfield, Cheshire.

Opposed to Direct Selling.—Steiner Products, Ltd., Harvist Mews, London, N.7, point out that reports in the National Press recently have erroneously linked their name with a direct selling operation—Woman's World, Ltd., which is understood to be in liquidation. None of the Steiner group of companies, they point out, are in any way connected with Woman's World, Ltd., and Mr. H. D. Steiner (chairman and managing director) would have no connection with a door-

to-door selling operation, being "violently opposed to it."

Bonus Offers

LEWIS WOOLF, GRIPTIGHT, LTD., 144 Oakfield Road, Selly Oak, Birmingham 29. Sof'down nappies. Twenty packets invoiced as eighteen; Sof'down tie-pants. Twenty-seven invoiced as twenty-four. [Corrected note.]

G. B. KENT & SONS, LTD., 24 Old Bond Street, London, W.1. Kent real bristle and tipped nylon toothbrushes. Parker super-17 pen, ball pen and pencil set or Parker custom 61 pen or £5 premium bond tokens or 195 free nylon brushes or eight free bristle brushes on order for 72 doz. Parker super-17 pen and ball pen set or £3 premium bond tokens or 125 free nylon brushes or sixty free bristle brushes on order for 48 doz. Parker

super-17 ball pen and pencil set or £2 premium bond tokens or sixty free nylon brushes or thirty free bristle brushes on order for 24 doz. Parker super-17 ball pen or £1 premium bond or twenty-seven free nylon brushes or twelve free bristle brushes on order for twelve doz.

MAY & BAKER, LTD., Dagenham, Essex. Branded horticultural products. Additional 5 per cent. on order of £35 net value and over for delivery by February 28.

Premium Offers

LILIA-WHITE (SALES), LTD., Chardford Mills, Rockville Road, Birmingham, 8. Golden Babe shaped disposable nappies. Threepence off pack of ten, sixpence off pack of twenty.

PHILLIPS SCOTT & TURNER, 2 St. Marks Hill, Surbiton, Surrey. Delrosa rose-hip syrup. Nursery rag book to customers sending two Delrosa bottle tops.

NEW PRODUCTS AND PACKS

PHARMACEUTICAL SPECIALITIES

For Those Allergic to Tetracycline.—Bristol Laboratories, Ltd., Astronaut House, Feltham, Middlesex, have launched a new antibiotic injection, Tetrex PMT, claimed useful against infections caused by tetracycline-sensitive organisms (and therefore suitable for patients allergic to the tetracyclines). The basic compound is rolitetracycline nitrate. Tetrex PMT is available as a dry powder for reconstitution in separate single-dose vials for intravenous or for intramuscular injection. Each contains 350 mgm.

Sedative Analgesic.—Pharmaceutical Specialities (May & Baker), Ltd., Dagenham, Essex, are launching on January 2, 1967, a new speciality, Dolalgin tablets, a formulation of butobarbitone, codeine and paracetamol. Dolalgin, combining sedative, analgesic and antipyretic properties, is claimed of value in such conditions as dysmenorrhoea, neuralgia, myalgia, neuritis, arthritis, toothache, migraine, influenza and insomnia due to pain. The formulation has been introduced to meet the requirements of physicians who prefer a phenacetin-free sedative/analgesic association for use over a long period of time, or for patients who are thought likely to misuse or take overdoses of phenacetin-containing preparations, with the possible result of renal damage. Dolalgin is understood to give relief of symptoms in about 15-30 minutes, and to be well tolerated when given in the recommended dosage. The tablets are white and uncoated. Packs are containers of 50 and 500.

FOODS

Two New Junior Foods.—From January 2, Trufood, Ltd., London Road, Guildford, Surrey, are adding two new varieties to their "junior" range of baby foods. Named "chicken casserole" and "braised kidney dinner," both are meat and vegetable recipes offering complete first courses for an older baby.

OVER-THE-COUNTER MEDICINALS

"Revolutionary" Indigestion Remedy.



—Sovol, a new indigestion remedy described as "revolutionary" is now in national distribution. Manufactured by Carteret Products, of Folkestone, Kent, it is available in 12-tablet pack. Sovol is claimed both to correct excess acidity and to stop pain and heartburn by dispersing the wind that causes it.

COSMETICS AND TOILETRIES

Repackaged.—Jackel & Co., Ltd., Kitty Brewster Estate, Blyth, Northumberland, have repackaged the 1½-oz. and 3-oz. sizes of their Proteinail speciality into unit cartons and have introduced a new ½-oz. size, 2 doz. to a display unit. Proteinail is described as a high-potency protein lotion, delicately perfumed and non-sticky. It "leaves the hands refreshed and feminine."

"Marron and Cream" Look.—Madame St. Germain, Paris consultant of Lenthier, Ltd., 17 Old Bond Street, London, W.1, has "taken the smooth warmth of marron glacé and matched it with the softness of cream

in twin pressed-powder eye shadow." The corresponding new look for the skin is Candlelight, a new shade available in Lenthaler's foundation lotion, face powder, Finishing Touch and Matt Magic all-in-one make-up. Candlelight is designed to cover, not to colour the skin. It is understood to veil tiny imperfections but to allow the complexion to show through naturally. Marron and cream easy-to-apply pressed-powder eye shadow is in twin new shades for the twin compact. Also available from Messrs. Lenthaler is a new "sugar mouse pink" lipstick shade "More or Less Pink."

PRODUCTS FOR ANIMALS

Dog Shampoo. — As a companion product to their J.D.S. dog shampoo Phillips Yeast Products, Ltd., Park



Royal Road, London, N.W.10, have introduced Vetzyme cream shampoo. The product is available in bottles containing 2, 4 and 13 fl. oz. and containers of a half and one gallon.

SUNDRIES

Air Freshener with "New Taste." — Airwick, Ltd., Slough, Bucks, have launched a new "Lilac Time" air freshener in a "tall 8" can overprinted with lilac design.

New "Quality" Three-ply Facial Tissue. — Mansell Hunt Catty Group of Companies, Settle Street, Bolton, Lancs (a member of the Paper Converting Division of Oxley Industries, Ltd.), are launching in January 1967 a new three-ply facial tissue. "Gold Lace," claimed to give an extra one-



third strength over competitive two-ply tissues. The pack—here shown—has been designed for "immediate eye appeal," as well as looking attractive on a lady's dressing table (or in any other part of the house). Its dimensions are 10 x 3 x 4½ in. and its design is in gold with royal blue lettering, with embossed lace on the pack top. The tissues (size 9½ x 8 in. each) are white.

Correspondence

Letters when received must bear the name and address of the sender, not necessarily for publication. The Editor does not hold himself responsible for the views expressed.

A "Good" Chemist

SIR,—I have always considered my pharmacy to be clean, well stocked and attractive; a place where customers may, and indeed do, seek advice on many subjects, including personal worries unrelated to pharmacy—a "good" chemist's in fact. Alas, I have now been jolted out of complacency by an article in the Jan Dunbar column of *Woman's Own*, dated December 17, in which she advertises Yestamin. I don't stock Yestamin. There isn't any call for it. I couldn't sell it when I did stock it. I am not, therefore, according to the advert, a "good" chemist. I do, however, sell lots of another proprietary yeast product. What sort of pharmacist does that make me—"good" or not so good? According to the "code of ethics" pharmacists are not to be

thus differentiated. D. R. HORRELL, Farnborough, Hants

Holiday Exchanges in 1967

SIR,—Lists of British and French pharmacists who wish to arrange holiday exchanges for themselves or their families are now being compiled in London and Paris. Members of the Pharmaceutical Society of Great Britain who wish to be included should obtain an application form from the Secretary, Franco-British Pharmaceutical Commission, 17 Bloomsbury Square, London, W.C.1. Forms should be returned by the end of February and soon after that date lists will be sent to all those who have expressed an interest.

SIR HUGH LINSTEAD, London, W.C.1

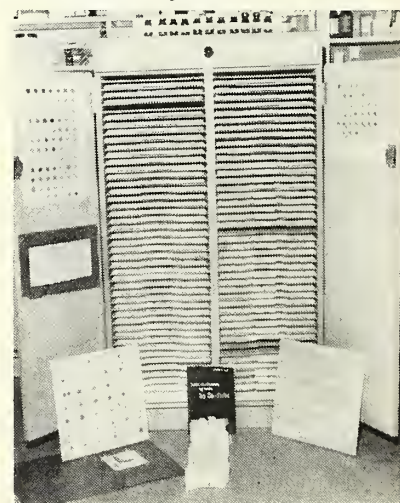
TABLET CABINET AT MODERATE PRICE

A hospital pharmacist's "workable system"

SIR,—For several years I have toyed with the idea of making a workable system for the identification of tablets/capsules. To this end I have made inquiries from various representatives who travel about the country to the various hospitals. Although systems appeared to be in use it was difficult or impossible to get any detail as to the construction and practicability of usage. It was not until I saw in the *C. & D.*, June 11, 1966 (p.593), "The Tablet Cabinet," by Mr. Gareth Hughes, F.P.S., Scunthorpe, that I encountered practical details of actual method in use. I contacted Mr. Hughes, who was very helpful, but inquiry into the cost of this type of cabinet showed that it was obviously out of the price range that would be countenanced by my Management Committee. After some deliberation I decided to evolve a method using your Tablet Identification system as a basis for colour range. You will see from the enclosed photograph that the result is practical, and the cost within reasonable proportions.

A Craftsman's Job

The cabinet, made on the premises by one of our handymen—a real craftsman—measures 4 ft. high, 2 ft. 3 in. wide by 13 in. deep. It holds ninety trays, which slide into separate compartments. The trays are ordinary polystyrene ceiling tiles 1 ft. square—white for coloured tablets/capsules, blue for white tablets. Each tray is first sectioned off into squares, and I found that a set of cork borers and a nail file or other pointed instrument were ideal for cutting a compartment suitable for holding any type of capsule/tablet. The left-hand compartment of the cabinet holds the coloured tablets, each tray being coded at the front edge in accordance with the colour chart. The right-hand compartment holds capsules and white tablets; again with the capsule trays coded at the edge. White tablets are arranged according to size, and each tray marked with the size. Each tablet/capsule has



a label underneath, indicating its name and, if it contains a poison, the name and quantity of poison. The drawer at the top of the cabinet contains a card-index system relating to each tablet/capsule stored, and the back of the card gives any special information relating to procedure in case of poisoning; a white tile set of reagents, and a card index with simple tests that may be used on plain tablets to confirm barbiturates and alkaloids, etc. Last but not least, there is a magnifying lens for close inspection of CoTabs, etc. The cabinet at present has approximately 1,700 tablets/capsules but will hold 3,780. I have found that the polystyrene tiles are ideal in texture for holding the tablets, as it enables a tablet to be taken out for examination or comparison without damage. Before starting I contacted all the drug firms mentioned in your guide, and in every case the response was excellent. I would like to convey my thanks to them for their help which made this system a possibility.

J. STRANGE, Chief Pharmacist, Bridgwater, Somerset



CHEMIST AND DRUGGIST

For Retailer, Wholesaler and Manufacturer

ESTABLISHED 1859

Published weekly at
28 Essex Street, Strand, London, W.C.2

TELEPHONE: CENTRAL 6565

Year-end Suspense for Pharmacists

IN modern terminology 1966 is ending as something of a "cliff hanger" for pharmacists awaiting the judgment in the *Dickson v Pharmaceutical Society* appeal. The submissions by counsel were completed (and "judgment deferred") one day before the end of the law term, and the decisions are not now likely to be announced until the middle of January 1967.

"Cliff hanging," though of a perhaps less precipitous kind, also seems to describe the situation in respect of another aspect of the law — that dealing with the price maintenance of medicines and cosmetics. Though the work of the Restrictive Practices Court is proceeding, the date of the hearing has yet to be announced, and present indications are that the year will be well advanced before the proceedings commence.

In a field (law drafting) diametrically opposed to judicial decisions, pharmacists are again in a state of some impatience — awaiting the proposals for new medicines and poisons legislation. That situation of suspense has now continued for so long that it seems almost to have become a permanent disability handicapping pharmacists — the persons principally concerned — while others more privileged have had recourse to certain confidential documents. Pharmacists' strong hope is now that, when the Minister of Health does decide that the proposals may be generally released, he will allow adequate time for chemists to consider the recommendations, and that he will not expect quick acceptance where others have had the advantage of ample time to scrutinise the proposals.

A new term, "cliff storming," could be coined as perhaps the most appropriate description of another — and again pressingly important — problem confronting pharmacists in retail practice during 1967, namely dispensing by doctors in rural and adjacent areas. As we have previously indicated, that subject is one in which rural pharmacists need the support of their urban and indeed all pharmaceutical colleagues, since it involves the central principle that every citizen for whom medicine is prescribed should have access to the most competent professional service available.

A situation that could landslide into one even more dangerous is to be found in hospital pharmacy, where the staffing situation — a typical example of brinkmanship by the authorities — has forced many hospital pharmacists to indulge in "cliff hanging" for some considerable time.

Other examples could doubtless be cited, all contributing to have made 1966 a year of stress for all

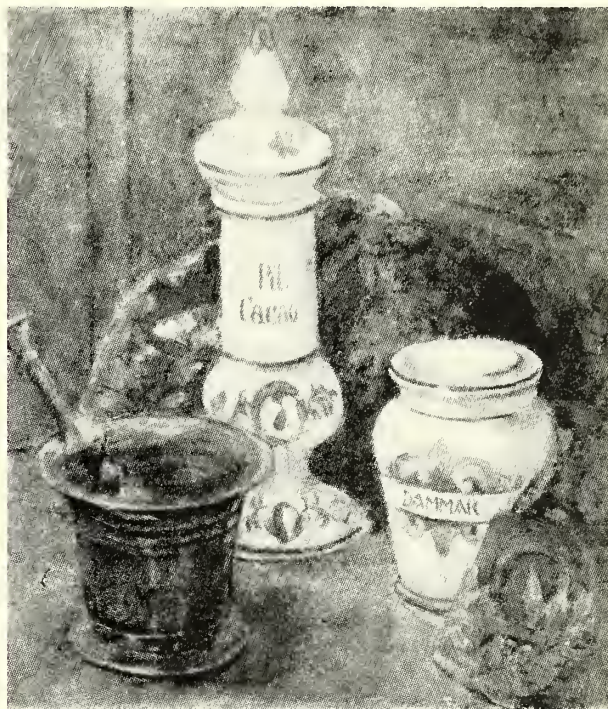
engaged in pharmacy. Despite the difficulties and demands that have been encountered, however, the public have again been well served by pharmacists, and whatever 1967 holds in store customers and the sick will continue to receive of pharmacists' best.

Onward from Galen

SIDELINES OF CURRENT COMMENT

★ PHARMACEUTICAL GREETINGS ★

QUITE one of the nicest Christmas cards we received was the wholly pharmaceutical one here reproduced. Though it does not bear the well known VEL signature, we take it to be based upon an original drawing by the sender, Miss V. E. Lewis, Hitchin, Herts, some of whose other attractive compositions as pharmacist/artist — albeit drawings in another *genre* — appeared frequently in our columns a year or two back. The elegant drug jar for *Pil. Cacao* is



presumably from her own collection. As we have not been able to trace the formula for the pill — or indeed any reference to it — in our scanty office reference library, we may be forgiven for supposing it suitable for passing round like a Smartie on Christmas evening. Of the seasonable appropriateness of Dammar we are less confident. Our reference book describes it as the name given to several hard resins imported from the East, "the exact botanical origin of which has not been determined with any certainty." The resin is, or was, largely used in varnishes for coachbuilders and painters. It is a pleasant conceit to suppose that it comes into use after Christmas each year to refurbish the sleigh of Father Christmas after the buffeting it must undergo during his transcontinental journeyings.

★ GUIDANCE ON PRODUCTS FOR FARMERS ★

BELIEVING that farmers will be prepared to pay more for specialist (as opposed to omnibus) products, the publishers of *Medindex* are issuing a quarterly *Farmers' Index* that claims to give, besides guidance on actions and uses of farm chemicals, impartial information on products indexed in sections on animal health, crop protection and fertilisers. No products are being listed unless their active constituents are declared. In the crop-protection section only products approved under the Agricultural Chemicals Ap-

proved Scheme are being entered (except for new products). Feature articles on subjects of topical interest are also included, as is a directory of official services, and it is planned to include in future editions supplements on subjects related to the use of farm chemicals (for example spraying machinery). The index is being sent free, by controlled circulation, to 25,000 leading farmers in the country (who qualify for inclusion on the mailing list under an acreage-of-land or head-of-stock basis). Additional copies are available on a yearly subscription of 50s. from 174 Brompton Road, London, S.W.3.

★ COW GREEN IS A VALLEY ★

Cow Green is a valley—but for how long? A part of upper Teesdale in Yorkshire, Cow Green has been a reserve of great interest to botanists for many years but it may soon be flooded to become a reservoir to satisfy the thirst of chemical plants at Billingham. A Select Committee of the

House of Lords has been receiving evidence and soon a vote will be taken which may decide forever the future of this unique valley where, by a combination of geology and climate, plants that colonised immediately after the retreat of the Glaciers have survived. Only high in the Alps and in the Arctic region are there said to be similar colonies. As a pharmacist my own botanical knowledge never extended further than was necessary for passing the qualifying examination some years ago, but I recall quite vividly my thrill at seeing, for the first time, the Gentians and other flowers I could not then name, growing wild above Cauldron Snout—a thrill that never diminished on subsequent visits. Perhaps kind weather contributed to the keenness of my pleasure, for I recall with rather less enthusiasm earlier outings as a student botanist at Edinburgh, when I tramped the hills around the city in pouring rain to search for a specimen of the elusive sundew. Perhaps I should have been happier at Cow Green.

Pharmaceutical Society of Ireland

MONTHLY MEETING OF COUNCIL

THE new Medical Preparations (Control of Sale) Regulations, 1966 (see p.630), were discussed at a special meeting of the Council of Pharmaceutical Society of Ireland on December 19. Speaking at the Council's monthly meeting in Dublin on December 13, THE PRESIDENT (Mr. M. L. Cashman) said that a number of matters in the legislation required careful study. Until the Council had examined them it would not be advisable to make any observations. The legislation contained certain anomalies "and we have reservations on many aspects of it". The regulations had not been brought out in conjunction with the poisons regulations and difficulty might therefore arise in achieving the purpose for which the legislation was being introduced.

Hardship Cases

THE REGISTRAR (Mr. J. G. Coleman) reported that he had written to the Department of Health on November 24 mentioning reports of a marked increase in recent months in the number of hardship cases receiving supplies of medicines from dispensaries. "It would appear," he had written, "that there has been a considerable relaxation in the means test and that persons who are quite well off are being granted help if they show that they are being prescribed quantities of medicines for a protracted period. It is believed the matter is sufficiently serious to justify further discussions between officials of the Department and representatives of the Society... It is hoped you will check on the number of hardship cases to ascertain if the number is still 'negligible' as you stated last year". A reply from the Department had agreed to a meeting but had explained that, as the latest returns available were for the year ended December 31, 1965, discussions would be more fruitful and purposeful, it was suggested, if deferred until the end of January 1967.

Information for the current year would then be available. THE PRESIDENT considered the suggestion reasonable and looked forward to discussions at the earliest possible date after the figures became available.

THE REGISTRAR said he had written to the chairman of the County Managers' Association (Mr. D. McCarthy) on December 9, pointing out the apparent absence of any consistency in deciding what constituted hardship. Each person diverted from a pharmacy to a dispensary for his pharmaceutical needs represented a loss of income for a local pharmacist, and ironically the pharmacist, as a ratepayer and taxpayer, must contribute to the cost of the scheme that was undermining his livelihood. A meeting between representatives of the Association and the Society had been requested, but so far no reply had been obtained from the Association.

Two further letters had been sent to the Minister of Health. The first, dated October 25, had pointed out that a joint negotiating committee, representing the Society and the Irish Drug Association, had in 1965 had discussions with officials of the Department on the supply of medicines to members of the lower income group. Subsequently the joint committee had submitted proposals on behalf of all pharmaceutical chemists. So far, the letter continued, those proposals had not been accepted or rejected. "In the light of recent developments it is felt by the Council that a review of the situation is justified." The Minister was asked to receive a deputation from the Society. In the second letter the registrar pointed out to the Minister that the then Minister had received a deputation from the Council on June 22, when many aspects of poison control had been discussed, and given a reminder that, before he departed to take up his new position as Minister for Education, Mr. O'Malley had written confirming that there would be a speeding up in implementing the recommendations of *Comhairle na Nimheanna* and that interim measures under the Health Acts would be introduced immediately. "The Council believes that, when you hear the views of a deputation from the Society, you will likewise accept the contention that it is in the public interest to bring poisons and pharmacy legislation up to date without delay." For that reason the Minister had been requested to receive a deputation at an early date.

Entitlement to Free Medicines

MR. J. P. O'DONNELL said a growing number of lower income group people were becoming entitled to medicines provided they went to a dispensary doctor. Instead, they were going to private practitioners and getting their medicines by post direct from local authorities. In country districts such people had, until recently, taken the prescription to a chemist, but now they were making representations to the local authority and the medicines were being posted to them. He would like to find out how many such people there were. Asked by the registrar if he was referring to people getting specialist treatment, Mr. O'Donnell said that a "hardship" case was a person beyond the lower-income group who was able to plead hardship, but there were a number entitled to free medicines only through the dispensary. He was contending that, if they opted out of that arrangement and went to a private practitioner, they lost their status as lower-income people. THE PRESIDENT replied that that was not so, though a problem arose when people went to consultants. Local dispensary doctors generally did not provide medicines, and "vanloads" of psychiatric drugs were going out from consultants' clinics, dangerous and potent substances being supplied in large

quantities over wide areas. He had been informed that that was happening in Kerry, the responsibility for handling the drugs being left to a van attendant who covered a wide area. That was a departure from established practice. The question of a lower-income-group person being entitled to go to a private practitioner had been discussed in Dublin in 1963, when it had been ruled that the holder of a general medical service card, by going to a private practitioner and paying him, was not debarred from getting free medicines. The Society would have to ask the Department to keep in mind practices that might be described as irregularities. MR. D. J. KENNELLY said the important point was that prescriptions for hardship cases should be dispensed at the local dispensary or at a community pharmacy, where they were legally entitled to be dispensed. Instead, drugs were apparently being posted direct to the patient. "This breaks every rule in the book, and on this question we must be emphatic. If it were allowed to continue standard packs might be sent out containing more than the quantity required for the patient and not accompanied by the directions specified on the original prescription". There was no protection to ensure that the patient took the correct number. "Extraordinary amounts"—amounts normally not stocked by the average pharmacist—were being dispatched. Another objection was that medical literature was being sent with the medicines, for it was highly undesirable that a patient should learn in that manner of possible side-effects. MR. O'DONNELL favoured discussions with the Department to arrive at an interim arrangement.

THE REGISTRAR referred to a report (see *C. & D.*, November 26, p. 526) in which Mr. J. de Loughry, Nenagh, was stated to have said at an Irish Drug Association meeting in Athlone that, after writing to the Society in July to find out if action could be taken to exclude "a non-active, retired pharmacist" from accepting a position with the local health authority, the only reply he had received was the report that had appeared in the pharmaceutical Press of what had transpired at the September Council meeting. "In fact", said Mr. Coleman, "Mr. de Loughry wrote on July 23 and on July 25 I sent him a long letter analysing the situation, giving what could be regarded as the official view, and deprecating the fact that Mr. de Loughry's Association had not notified either the I.D.A. or the Society so that they could advise him." At the time, said Mr. Coleman, he had been unaware that the I.D.A. had given its blessing to the local Association to go ahead with the scheme.

Regular meetings

MR. R. J. POWER suggested regular meetings of the joint negotiating committee. They would at least reassure provincial pharmacists that the committee was active.

MR. M. F. WALSH seconded the proposal, which was agreed. THE REGISTRAR reported receipt of a letter from the I.D.A. asking for a meeting of the joint committee to be held. In another letter Mr. B. R. Smith (I.D.A. secretary) had written stating that, at a recent meeting of the Association's committee, a discussion had taken place on the Federation of Professional Associations—a new organisation established under the chairmanship of Dr. J. P. O'Donnell (University College, Dublin). THE REGISTRAR explained that the Federation had been established for over a year, and the Council had decided that, as the Society was a statutory body, it could not become a member of the organisation. MR. M. F. WALSH said he was aware that the Association was interested in becoming a member, and MR. SEMPLE thought the Association should join.

THE PRESIDENT announced that the Education Committee had almost finished drafting a report on the document that had been submitted by Dr. Hartley and Professor Beckett on educational facilities in the Republic, but further consideration was being deferred until the January meeting.

The Federation of Soroptomist Clubs of Great Britain

and Ireland had written on December 5 urging that the Minister should, in the interests of safety, take immediate steps to standardise the naming and packaging of drugs so as to ensure simplicity and uniformity and that the names of dispensed drugs (and date of expiry when appropriate), together with clear instructions for use, be written on the container. The letter had pointed out that similarity in packaging of widely different substances could have serious and even fatal consequences. The medical profession, it had stated, had been concerned for years about the matter and for eight years the Royal College of Nursing had been pressing for action. MR. KENNELLY said that such suggestions could lead to abuse and self-medication. The entire situation of health matters, prescriptions, and the Health Service generally was different in the Republic, from the situation in England, where there was a welfare State. He considered the matter—a controversial one—would require much greater examination in the Republic. Doctors had been divided on the question, but pharmacists were generally of the opinion that it would lead to considerable abuse. MR. F. LOUGHMAN pointed out that there was an arrangement under which pharmacists put the name of the drug on the label when asked to do so by the doctor. It was decided to acknowledge the letter and convey the Council's views.

Pricing of Prescriptions

The I.D.A. secretary wrote stating that his executive had decided to give formal notice to terminate the pricing of prescriptions for the Department of Health and local health authorities under the Maternity and Child Health Services Regulations. The work had, at considerable inconvenience, been carried out by the Association on a voluntary basis for the past twelve years and would now be continued for only a short time to enable the Department to make alternative arrangements. He had suggested to the Department that, as an alternative, the pharmacist dispenser should include the price on the prescription at the agreed terms. Regular spot-checks could be made to ensure that the correct pricing was generally observed. THE REGISTRAR reported having written informing Mr. Smith on November 30 that Council members on the joint negotiating committee would be pleased to meet members of the Association to help work out a scheme for guiding pharmaceutical chemists who might be asked to give a temporary service in dispensing prescriptions normally obtained from dispensaries. The letter recalled that, when he had written on October 12, he had suggested that a circular should be included in the Association's price change list asking members to get in touch with either the Association or the Society before submitting proposals to a county manager. "Anxiety expressed by the Council at its September meeting has been proved justified by the recent happenings in Nenagh", the letter had added. A further letter from Mr. Coleman to Mr. Smith on October 12 had pointed out that, at the previous day's meeting of the Council, it had been decided that negotiations by individual pharmacists or groups with county managers could constitute a danger to the efforts of the negotiating committee. Mr. Smith had replied stating that the attention of local associations had been drawn to the matter at a delegate meeting in Athlone, and that the whole question was being dealt with fully in the next circular to members.

Irish Students' Association

Permission was granted to the Irish Pharmaceutical Students' Association to use the College assembly hall during a "mini-congress," February 10-14, 1967. Notification was received that the congress of the *Fédération Internationale Pharmaceutique* was being held in Montpellier, France, September 4-9, 1967, and the annual meeting of the American Pharmaceutical Association in Las Vegas, New Mexico, U.S.A., April 9-14, 1967.

(To be concluded)

At a time when there is a strong tendency to think in terms of Britain's entry into the Common Market, which its pharmaceutical aspect would mean much greater approximation of standards of practice to those that apply in France, Holland and the other countries of "the six," the writer of the article that follows argues that the concept of purely ethical pharmacy is not necessarily in the best interest of the public. He gives his views on how British pharmacy should develop.

TRUE RÔLE OF THE PHARMACIST

By G. M. FOX

IN the following article I attempt to present an examination of the position of the retail pharmacist and his relations with the community. My aim is to provide a line of development for retail pharmacy that is in accordance with the requirements of the public rather than regarded from our own narrower professional viewpoint.

Basic Concept

I start with the basic concept that the true function of the pharmacist in general practice is to provide the public with medicines when they are needed and at a fee commensurate with his technical training and acceptable to the public, and to proffer specialist advice to the medical profession and the public on the proper use of medicines. In providing those services the pharmacist justifies and earns a contribution toward his livelihood — a feature equally important to him as the provision of the service. My statement of the pharmacist's function needs to be looked at in detail, almost word by word.

"MEDICINES" are not here defined but taken to include both the provision of dispensed prescriptions and items for self-medication and treatment. The problem of definition is discussed later.

"WHEN NEEDED." There is a distinction in this term between when needed and when sought. It would be uneconomic to provide a 24-hour service merely as a source of items for self-medication. The need must be real. It is generally accepted that a need arises after an evening surgery, and it is incumbent on local pharmacists to make adequate provision for the satisfaction of that need. Also implied in "when needed" is reasonable facility. A journey of fifteen, ten or five miles by public transport could not be regarded as reasonable facility, especially if the patient were in a poor state of health. That point should be borne in mind by the chemists when complaining of doctors' dispensing, or when considering the distribution of pharmacies.

"AT A FEE COMMENSURATE WITH HIS TECHNICAL TRAINING AND ACCEPTABLE TO THE PUBLIC." The balancing of those conflicting interests is of some concern to the pharmacist, both as a supplier and as a tax-payer. The interest of the government of the day is to obtain the most efficient service at the most economical cost to the community. The limit of payment to pharmacists will have been reached if it becomes more economical for the Government to organise its own dispensing service than to let it out to private contract as at present. There will always be some pharmacists who prefer the security of government service to the comparatively precarious career of the *entrepreneur*.

The conclusion to be drawn from those observations is that the pharmacist must beware of pricing himself out of the dispensing field.

In looking at the rôle of the pharmacist in the community, it is at once obvious from the small amount of public criticism of pharmaceutical services that pharmacists in general, are providing a reasonable and satisfactory service. That is bound up, in my belief, with

- a) the comparatively large number and wide distribution of pharmacies and
- b) the pharmacist's intention (not always prompted by

financial return) to provide a fully adequate service to and for his customers.

The ability of the profession to spread its services, so that no sick person is excessively distant from a pharmacy, is facilitated by its "other activities." Whether or not the Court of Appeal in the "Dickson" case will decide that those "other activities" amount to trading or are professional is largely a point of law. No amount of argument can alter the fact that the sale of cameras, cosmetics or wooden-soled sandals has nothing whatsoever to do with the pharmacist's professional rôle as supplier of medicines and adviser thereon.

But why are we supposed to be ashamed of engaging in those "other activities?" The proposals on advertising that the Council of the Society has put forward imply that it is unprofessional to make it known that we engage in "other activities." There appears to be a peculiar discrimination here. One feels bound to ask which is the more unprofessional — the *pursuit* of these "other activities," or *advertising* that we sell cosmetics, cameras, perfumes, etc.? I would suggest that the present extent of the service provided, both professional and in connection with "other activities," is broadly meeting customers' requirements. Excessive concentration into a purely dispensing rôle might correspondingly fail to meet them.

In this context the development of medical centres is worthy of consideration. Whilst such centres can increase the facilities for medical diagnosis and treatment, building and staffing them would appear to be so costly that they can only be justified in densely populated areas. The suggestion that patients should travel long distances by public transport to such centres instead of to a nearby surgery is not a feasible proposition: it would only increase the tendency to ask the doctor to call at patient's homes. It would appear, therefore, that there are economic and accessibility limits to the development of medical centres, especially in rural areas where the doctor travels to his round of surgeries rather than patients travelling many miles to him. In situations where medical centres are projected the onus is on local pharmacists to show that they can provide a wider, more satisfactory and economical service than can be provided by the dispensary in the medical centre.

Advisory Functions

"AND TO ADVISE THE MEDICAL PROFESSION AND THE PUBLIC ON THE USE OF MEDICINES." In an advisory capacity a well informed pharmacist can provide a valuable service, though without any reservations it must be stated that the ultimate responsibility in prescribing must rest with the doctor who has examined the patient, noted the symptoms and arrived at the diagnosis. The limits of human communication (and doctors are not noted for their ability in that respect) prevent him from describing in full — for the benefit of the would-be prescribing pharmacist — the situation leading to his diagnosis. In making it the doctor has drawn on his particular experience, which is not available to the pharmacist, who should therefore limit his advice to discussing what medicines are available for the diagnosed disease and advising on side reactions and incompatibilities. If the doctor is incapable of prescribing

(as has often been reported) then representations should be made to the authorities responsible for his training and conduct. To relieve him of his responsibilities is not the answer.

Bearing these considerations in mind, where does the pharmacist stand in regard to counter prescribing? The ultimate logic is that he should not engage in it, but should always refer the patient to the doctor for specialist diagnosis. However, that is a suggestion which everyone in retail practice recognises as ludicrously impracticable. The doctors could not cope with the problem if that procedure were adopted. There must be a compromise, but the compromise must be practical. It must accept that, under the present social system and at present standards of education, there has to be provision for self medication, with a modicum of advice from the pharmacist who, from his experience and training, is better informed on the medicines and their suitabilities than the customer himself.

However, in presenting advice the pharmacist must be aware that he may be adopting two rather dangerous concepts:—

- (a) that he has correctly diagnosed the ailment from a perfunctory inquiry of the patient; and
- (b) that the medicine he recommends will cure the ailment or alleviate the condition.

The pharmacist is certainly not trained as a diagnostician but, bearing in mind those dangers, it remains true that requests for advice occur daily, and that many customers have reason to be thankful for a pharmacist's advice and help.

A Complication

The definition of a "medicine" is severely complicated by the fact that many experiments have proven the effectiveness of placebos — or provided evidence of psychosomatic ailments. When a tablet of lactose can "cure" an ailment, how can one define a "medicine?" In those circumstances, the motto "all medicines through the pharmacy" becomes untenable — and the more so when one considers the household medicine cabinet, from which any old prescribed or proprietary medicine may be consumed without any reference to professional advice.

It becomes clear that certain propositions in the paper on medicines legislation presented recently by the president of the Pharmaceutical Society have no foundation. How, for example, is efficacy of a "medicine" to be proven? On "ethical" preparations evidence can be obtained and is provided, but for many advertised proprietaries clinical evidence could not be obtained. Countless personal testimonials, collected over the years a product has been on sale, might be brought to substantiate the efficacy of a "medicine" which, under clinical scrutiny, would be discarded as useless.

That being so, to limit the sale of advertised "medicines" to pharmacies would be open to two objections. First, it would restrict public facility of purchase. Secondly it would bring odium on the pharmaceutical community for attempting to obtain a monopoly in the sale of a commodity which they knew or believed to be ineffective.

Thus the Council, in baldly stating "all medicines through the pharmacy" does not justify or prove the statement, no matter how long or frequent the cry. Far more cogent argument must be presented before such a proposition becomes accepted by the public or the legislators.

The effect of the writer's examination of the problems up to this stage is that, from the standpoint of public service, the Council's policy of obtaining greater emphasis on the "ethical" side of retail activities is neither proven to be beneficial nor is even advisable. A concentration into purely dispensing activities could cause government-controlled dispensaries to become more economical than the present supply by private contracts.

However, with increasing costs, competition and reduction in man-power there is a trend towards fewer phar-

macies. Some control over the distribution (siting) of the remaining pharmacies and of any new outlets must obviously be in the public interest. How those pharmacies shall be conducted depends on the particular situation. To prescribe a limit on the "other activities" that might be conducted in a new pharmacy, the Council will at the same time be limiting the economic viability of the project. If that results in a loss to the proprietor, who is to make up the deficiency? Is it to be by levy on the more profitable undertakings or from the taxpayer? If the latter — why should he be called upon to subsidise a private concern merely to comply with an arbitrary code of conduct?

It seems clear that the attempt to convert the pharmaceutical service in Britain to the continental standard would risk losing pharmacists what independence they now have, and it has yet to be proved that the continental system provides any better service to the community than our own.

My own suggestion is that the pharmacist could and should change his rôle from a dispenser to that of supervisor of dispensing, with benefit to his reputation or public image. With the decrease in available man-power in the profession that aspect will come increasingly to the fore, and serious consideration must be given to the training and status of the dispensers or assistants the pharmacist is to supervise. Provided the training (and presumably registration) is under some control by the Society, pharmacists should not fear any diminution of their responsibilities by the introduction of those assistants. Other professions — accountancy and the law, for example — delegate much of their work to assistants. So does the pharmaceutical industry.

If, too, pharmacists in retail wish to increase their leisure time in keeping with other sections of the community, they must be prepared to relinquish a little of their independence and co-operate to a greater extent with their colleagues in the near vicinity.

The writer has tried to outline a path of development more in keeping with the aspirations of the majority of pharmacists in retail practice than is reflected in the policies of the Council of the Society, with their emphasis on ethical considerations enforced by means of the Statutory Committee. To sum up:—

- 1 Too great an emphasis on ethical activities can price the retail pharmacist out of the dispensing field.
- 2 The concept that purely "ethical" pharmacy is in the best interest of the public, is not proven.
- 3 In engaging in "other activities" we pharmacists are providing a distributive system which satisfies a public need.
- 4 Pharmacists should consider a greater degree of delegation and increase their supervisory and advisory rôle.
- 5 Retail pharmacists could improve their well-being by more locally organised co-operation with their fellow pharmacists.

A PHARMACIST'S ANTHOLOGY DISEASE NOT THE CAUSE OF POPULOUSNESS

From "The Life of Samuel Johnson," by James Boswell

C.: "It is remarkable that the most unhealthy countries, where there are the most destructive diseases, such as Egypt and Bengal, are the most populous." JOHNSON: "Countries which are the most populous have the most destructive diseases. That is the true state of the proposition." C.: "Holland is very unhealthy, yet it is exceedingly populous." JOHNSON: "I know not that Holland is unhealthy. But its populousness is owing to an influx of people from all other countries. Diseases cannot be the cause of populousness, for it not only carries off a great proportion of the people; but those who are left are weakened, and unfit for the purposes of increase."

UNMOVED!: I sent a sales tip to a firm making a well-known brand of laxative. Naturally, I expected some reward if they considered the tip useful. Back came a letter of thanks—and four 7s. tins of the stuff—*Reader's letter to the Sun.*

PHARMACEUTICALS IN WEST AFRICA

Export opportunities overshadowed by British manufacturers

By SAT SAPIENTI

IT is disturbing to note that exports from the United Kingdom of medicinal and pharmaceutical products to Nigeria during the first six months of 1966 were £243,000 lower than they were during the comparable period of 1965. No blame for that decline can attach to the military coup of January which, at the time, met with considerable popular support in wide areas of the Federation and which above all, terminated the disturbances that had preceded, accompanied and followed the elections of October 1965 in the Western Region.

Swiss and French Performances

Since the Swiss and French-owned sections of the pharmaceutical industry report business in Nigeria as "brisk and increasing" during the period under consideration it would appear that the fall in exports has been at the expense of the American and/or totally British-owned section. Four major British-owned concerns with a large share of the Nigerian market should surely have been able to look after themselves, since they either manufacture locally and/or carry their own stock. Thus one surmises the loss in business to be at the expense of the American-owned concerns. Should that inference be correct — and from a recent tour of the country I believe there are good reasons to believe it to be so, then the development is both surprising and fascinating, since it is currently fashionable to denigrate the efforts of British manufacturers and cite American business as the acme of efficiency.

With one exception the writer has noted at office level in both U.K. and U.S. companies an astonishing lack of knowledge concerning the West African market as a whole, the opportunities that it presents and the problems that it imposes. There even appears no genuine interest in those factors, which is deplorable since Britain urgently needs higher exports. Nigeria, so far as pharmaceuticals are concerned, offers enormous potentials and should not have dropped from second to fourth place in the "export league." During the earlier part of the year the "iron curtain" countries began taking a serious interest in Nigeria. During the first quarter, for example, the Union of Soviet Socialist Republics commenced negotiations for a sole agent to import Russian pharmaceuticals into Nigeria. The Hungarian Government, too, concluded an agreement with the Nigerian Government to establish a pharmaceutical factory, while a third "iron curtain" country set about the market with such thoroughness that within a few weeks over £50,000 business had been booked.

The problems that face most companies are communication failure, appreciation failure, administration failure and employee selection failure for junior executive posts. Import agents are often guilty of holding inadequate stocks, with the result that up-country wholesalers remain out of stock for periods varying from weeks to months. The situation applies to both slow-selling items and mass market lines. Too much blame for that state of affairs is usually laid on the import agent, but in the final analysis the responsibility rests with the manufacturer. He after all, imposes his terms of agreement upon the importer. Where the sole agency agreement is "without teeth," then the manufacturer renders his staff on the Coast powerless to deal with the problem. Occasionally some manufacturers, in an endeavour to overcome the local stock problem, have arranged joint distributorships, but unless constant care is taken with that type of arrangement the local distributors can engage in cutting prices throughout the range of jointly distributed goods, and the manufacturer may well be the

loser in the long run. No import agent is interested in handling cut-price products, and might refuse to handle them.

The size of the Nigerian market is known, but its potential is seldom appreciated, while the "breakdown" by substance or clinical indication is less commonly available information. The following "breakdown" by substance or clinical indication of U.K. imports for one year was carried out some time ago. As an indication of current trading they should be multiplied by 1.6 to account for the expansion that has since taken place. For those marked * the factor is a little higher.

Analgesics	In excess of £200,000
Antibiotics	In excess of £550,000, of which over £280,000 represented penicillin
Oxytocics	£6,000
Sulphonamides	In excess of £200,000 of which over £84,000 represented sulphathiazole
Antihistamines	£35,000*
Cyanocobalamine	£6,000*
Ephedrine	£19,000
Laxatives	In excess of £95,000

Manufacturers of competitively priced intravenous drips would do well to investigate a method of shipping goods on consignment and holding consignment stocks in Nigeria. That method of business is possible today with complete safety to the manufacturers' interest; there is a constant shortage of such solutions in the country. Careful negotiation could ensure that country-wide consignment stocks were held.

The recent increase to £90 per ton for first-grade cocoa announced in Western Nigeria should assist to stimulate trade in that area. Recent political events have tended to disturb potential foreign investors, who have little knowledge of the country, or who indeed may be totally unfamiliar with it. However, Nigeria does possess an educated élite, and the quality of Nigerian administration, judged by its permanent staff, together with the willingness of Nigerians to tender and/or accept apologies, and their readiness to admit error, all tend to indicate that Nigeria will not become "another Congo."

Other Markets

U.K. exports to Ghana increased in the first six months of the year by £280,000 against the comparable period of 1965. There is every indication that that rate of growth will be held if not expanded. The International Monetary Fund authorities have expressed confidence in the country's approach to her economic problems. Substantial amounts of short-term trade bills accumulated by the old regime are reported to have been extinguished. Ghana can be viable, and the speed of her recovery will probably astound the pessimists.

As ever, the inadequate stocks held by importers in Sierra Leone is disturbing, and business is being severely frustrated as a result. Again it is up to the manufacturer to work out urgently with the importer terms that are equitable in order to overcome the problem. A desire by each party to see the other's difficulties rather than a determination to issue dictatorial demands, could mean a bright future for British manufacturers and locals importers alike. Both parties must live, and patients do need medicines.

An urgent and fresh approach to the problem of stocks in Nigeria would be most advantageous to some manufacturers. Soundly based, aggressive, concentrated promotion of suitable products, suitably priced and suitably packed can produce in Nigeria not only quick results, but

permanent sales, since the Nigerian is brand-conscious and loyal.

Problem Solvable

The withdrawal of expatriate staff and reductions in local representative staff at the end of 1964 and in early 1965 in Ghana was a serious error that should be rectified. Local staff in Nigeria and Ghana do not present an insoluble problem. Indeed "quality" local and expatriate staff can both be attracted, provided the financial terms are reasonable and in line with the business written. Such staff can be held if fairly treated, encouraged, trusted to get on with

the job and above all not persistently harassed by inexperienced staff from headquarters. Staff based on Ghana can be encouraged to develop the markets of Sierra Leone, Liberia and Gambia, which are easily visited from Accra.

Briefing the Staff

Before leaving the U.K. the staff should be fully briefed, and not misled regarding their authority. Management at head office must learn that, in West Africa, authority must be delegated to the man on the spot. Rich rewards await those who offer appropriate products and organise to keep operational costs to intelligent levels.

NEW BOOKS

Drug Adulteration. Detection and Control in 19th Century Britain.

ERNST W. STIEB with the collaboration of GLENN SONNE-DECKER, *University of Wisconsin Press*, Madison, Milwaukee, U.S.A. 9½ x 6¼ in. Pp. 335. 56s. (\$7.50). To a Canadian pharmacist, in collaboration with a United States professor of pharmacy, has fallen the task of presenting a comprehensive historical account of the "war" waged against adulteration of medicines and drugs in Great Britain during the nineteenth century. The work investigates closely the development of control in the years from 1820, when Frederick Accum brought out his "Treatise on Adulterations," to 1906, when the United States enacted its first pure food and drug law. By that time, though many problems remained unsolved, the half-century of experience in administering the laws in Britain and the scientific techniques developed, "made it (for the U.S. authorities) merely a question of refining and extending the existing approach to controls rather than attempting any drastically new approach." The important rôles played by the Pharmaceutical Society from its foundation in 1841 and of the Society of Public Analysts formed in 1874 (in which a few pharmacists played a significant part) are fully described. Not always does the British pharmacist of that period appear in as favourable light as one might wish. In the first few decades following the foundation of the Pharmaceutical Society, states the author, "its leaders stretched logic and effort to maintain, on the one side, the ideals to which they aspired for the rising class of 'chemists and druggists'. On the other side, they tried to rationalise, if not justify, shortcomings of a lower stratum of that class, whose abilities and practices by no means conformed to the Society's aspirations." Adulterated drugs—even if substandard through incompetence rather than intent—repeatedly embarrassed the Society's leadership group. With the interchange of "advertising" for "adulteration" of drugs the remarks might seem no less appropriate to 1966. Any pharmacist with a book token or cash to dispose of will find in Mr. Stieb's readable book considerable entertainment and much useful information about his professional antecedents.

Methods of Vitamin Assay

MYER FREED. *John Wiley & Sons, Ltd.*, Glen House, Stag Place, London, S.W.1. Third edition. 9 x 5½ in. Pp. xvii + 424. 105s. THE Association of Vitamin Chemists [of the United States] was organised in 1943 and four years later published the first edition of "Methods of Vitamin Assay," a comprehensive collection of procedures that had been successfully applied by several of its committee members. The rapid development of vitamin methodology and the increasing complexity of the art necessitated a second edition in 1951, and the appearance of a third edition will be welcomed by all those who have come to rely on this book as a practical laboratory aid. The new book is larger by more than a third than its predecessor. The first three chapters deal with sampling, and the general principles of biological and microbiological assay techniques. They are followed by fourteen chapters devoted to each of the principal vitamins in turn, and a final chapter on "methods for other vitamins." The arrangement within these chapters is excellent, each opening with a section on "preliminary considerations" in which the chemistry of the vitamin is briefly outlined and alternative methods of assay are reviewed. Selected

methods are then given in full detail and observations on their application presented. Extensive literature references are appended to each chapter. The chapter on vitamin A has been extended to include chromatographic separation techniques and the maleic-anhydride method for the assay of samples containing mixed isomers. Chromatography figures also in the method for vitamin D, which is dealt with more fully than in the earlier editions, and in the vitamin E chapter, where the modern procedures for the separation of tocopherol mixtures on columns and on paper are fully described. The application of thin-layer chromatographic techniques to the assay of those vitamins, however, receives scant attention. The assay of vitamin C is also described more fully than in the earlier editions and includes detailed procedures for the differential determination of ascorbic, dehydroascorbic and diketogulonic acids. The chapters on the B vitamins are practically unchanged from the previous edition, except for those on folic acid and vitamin B₁₂. The former now includes the United States Pharmacopeia chemical method and in the latter the *Lactobacillus leichmanii* method has been rewritten and brought up to date. The highly specific *Ochromonas malhamensis* method for vitamin B₁₂ is described in full, and the isotope dilution method for this vitamin is also given. No details are given of the cup-plate or agar-diffusion technique of microbiological assay; the statement on p. 259 that "such plate methods are . . . not used for routine assay of vitamin B₁₂" may surprise workers in Great Britain, where these procedures have established themselves in the laboratories of pharmaceutical houses. Vitamin K now has a short chapter to itself—it was previously included in the "methods for other vitamins"—and the techniques based on whole blood clotting and prothrombin clotting times are described. The need for the development of a reliable chemical or microbiological method applicable to foods and feedstuffs is apparent. This is undoubtedly a useful book for laboratories concerned with vitamin assay—not only for the selected methods that are described in full but also for the copious references that make it a valuable guide to the original literature.—S.P.

ECHOES OF THE PAST

A DRY OR CONVULSIVE ASTHMA

From "PRIMITIVE PHYSICK: or, an Easy and Natural METHOD of Curing Most DISEASES" by JOHN WESLEY. London, 1772.

JUICE of Radishes relieves much: so does a Cup of strong Coffee:

Or, *Garlick*, either raw, or preserved, or in Syrup:
Or, Tea made with *Hyssop*, or *Ground-Ivy*, or *Daisy-Flowers* and *Liquorice*:

Or, drink a Pint of new Milk Morning and Evening.—This has cured an inveterate Asthma.

Or, use the Cold Bath thrice a Week.

Or, beat fine Saffron small, and take eight or ten Grains every Night: Tried.

Or, dry and powder a Toad. Make it into small Pills, and take one every Hour 'till the Convulsions cease.

Take from three to five Grains of *Ipecacuanha* every Morning; or from five to ten Grains every other Evening. Do this if need be, for a Month or six Weeks. Five Grains usually vomit. In a violent fit, take a Scruple instantly.

In any Asthma, the best Drink is Apple-Water: That is Boiling Water poured on sliced Apples.

Pharmaceutical Science in Hospitals

HARRISON MEMORIAL LECTURE, 1966

THE Harrison Memorial medal for 1966 was presented on December 7 to Mr. J. W. Hadgraft (chief pharmacist, Royal Free Hospital, London), by Mr. J. C. Bloomfield (president, Pharmaceutical Society of Great Britain).

MR. BLOOMFIELD said that, from the early days of Mr. Hadgraft's appointment as chief pharmacist of the five hospitals in the Royal Free group he had taken a keen interest in research into the problems that arose in hospital pharmacy practice. His work showed outstandingly how the pharmacist and pharmaceutical department could serve a hospital and its patients. Recently, as lecturer in pharmacy at the hospital's medical school, Mr. Hadgraft had made changes in the course to give the medical student a clearer view of pharmacy as a whole. He was currently a member of the Codex Revision, Joint Formulary and Galenicals and Sterile Materials committees of the British Pharmacopoeia and of the Society's Committee for Education and Science.

MR. HADGRAFT, in his lecture as medallist said he had elected to deal with the rôle of hospital pharmacist in developing the pharmaceutical sciences.

A Debt Acknowledged

Lieutenant-Colonel Harrison had never engaged in hospital pharmacy, but his life and work nobly exemplified the tradition, common to all pharmacists, of playing an essential part in safeguarding the public against the manifold dangers inherent in the development, production and distribution of medicines. His main interest was in pharmaceutical chemistry and he had been responsible for the analytical work behind the publication of "Secret Remedies," a book designed to draw attention to the many questionable proprietary medicines that were freely on sale at the beginning of the century. Colonel Harrison's most outstanding contribution had been the invention of the first box respirator used to protect British soldiers against poison gases, and that achievement exemplified the pharmacist's versatility in applying his expertise to a problem remote from the normal practice of pharmacy. In developing his gas mask, Harrison had been assisted by another distinguished pharmacist, the late Mr. C. E. Corfield, for many years Editor of the British Pharmaceutical Codex. Mr. Hadgraft said he had worked for a few years under Corfield's editorship, and wished publicly to acknowledge how much he owed to Mr. Corfield's guidance.

Developments in science and technology had perhaps tended to make pharmacists overlook the influence of formulation on the performance of a preparation in the human patient. In that field the hospital pharmacist could make a useful contribution by becoming a more effective link between the

pharmacist and his colleagues in industry and academic pharmacy.

Electrolyte Preparations

The development of new medical procedures such as haemodialysis and peritoneal dialysis had created increased demands for complex solutions of electrolytes, which often produced interesting formulation problems. The addition of sodium edetate to molar solutions of sodium bicarbonate for intravenous injection prevented the precipitation of calcium and magnesium salts, but more recent experience indicated that the problem was possibly more complicated, not only varying with different batches of bicarbonate, but perhaps also involving the glass container and the rubber closure. In producing intravenous infusions, haemodialysis fluids and solutions for peritoneal dialysis, the hospital pharmacist had extended his traditional rôle into a field more analogous to industrial production. Greater application of pharmaceutical science in hospital pharmacy was needed to protect the patient and ensure the correct preparation of the solutions. In addition to the traditional safeguards of checking, the hospital pharmacist must apply control procedures approaching those adopted in industry. It had been argued that the hospital pharmacist was not an analytical chemist and that such production levels were better handled by the pharmaceutical industry. Although not a pharmaceutical Luddite, said Mr. Hadgraft, he appreciated fully the force of the argument. Any hospital pharmacist who had relied solely on the pharmaceutical industry for supplies would know, however, how difficult it had become to maintain adequate stocks of all solutions used.

Demands for New Presentations

In a field in which medical science itself was advancing, demands for new combinations and novel concentrations of electrolytes inevitably arose. The pharmacist in the larger hospital must be capable of responding to the demand, and the question was not so much whether he was capable as an analyst as whether he was able to

ensure that adequate control was exercised within his department. New methods of rapid control were needed. He had found that flame photometry—a procedure that seemed to have escaped attention in many schools of pharmacy but which, because of his association with biochemistry in hospital practice—sprang readily to the mind of the hospital pharmacist, was useful in determining sodium and potassium ions in complex solutions.

Oral Potassium Supplements

Formulation problems had also arisen from the oral administration of potassium supplements to patients receiving treatment with diuretics.

The approach to the problem in his own department had been to attempt to formulate a tablet that dissolved rapidly and produced a relatively palatable solution. The potassium chloride could then be taken well diluted in solution, thus avoiding the possibility of a high concentration reaching any part of the gastrointestinal tract. Two formulations were at present under investigation.

Preparations for Hepatolienography

An investigation of pharmaceutical interest had arisen from an attempt to develop a preparation for radiological opacification of the liver—a process known as hepatolienography. The preparation must be injected intravenously in a form that enabled it to be taken up by the reticulo-endothelial cells and deposited in the liver. It must be radio-opaque, non-toxic and eliminated from the liver slowly, allowing sufficient time for the radiological procedure but not remaining permanently in the liver. In the past, emulsions of iodinated fatty acids and suspensions of particulate material had been used. Colloidal thorium dioxide produced successful opacification but hepatic fibrosis and liver cancer developed later. Preparations of other inert metals such as tantalum and barium remained indefinitely in the body.

Together with Dr. Zimmon, who had come from the United States to work in the medical unit of the Royal Free Hospital, Mr. Hadgraft had experimented with emulsions of iodised oil, using a combination of Tween 80 and lecithin as the emulsifying agent and completing the emulsification with an ultrasonic probe. Emulsions of small and uniform globules had been obtained but the preparations had proved toxic when injected into rats.

A suspension of a poorly soluble organic compound of iodine was then considered. Iodophthalein was precipitated in the presence of sodium citrate and a protective colloid by slowly injecting a solution of the sodium salt into a mechanically stirred solution containing polyvinylpyrrolidone and sufficient citric acid to give a slightly acid pH. By wet grind-



The Society's president presents the Harrison Memorial medal from Mr. J. C. Bloomfield (president of the Pharmaceutical Society)

ing in a roller mill and by sedimentation, particles of the order of 2 microns or less in diameter had been obtained. Suspensions approaching colloidal size had later been produced by precipitating the iodophthalein during ultrasonic agitation. Some of the suspensions had been examined by the electron microscope and he showed a slide of an electron micrograph of such a suspension.

Mr. Hadgraft said he did not altogether believe the evidence obtained from that photograph but showed it in order to illustrate the range of techniques available in a well equipped hospital for the examination of pharmaceutical problems. Before the evidence could be accepted uncritically it would take a research project in itself to determine the usefulness of the electron microscope in examining pharmaceutical suspensions.

Intravenous injection of suspensions into rats at a dosage of 500—1,000 mgm. per kilo of bodyweight produced an opacification of the liver that compared favourably with the results obtained with thorium dioxide. Reduction of the particle size resulted in more rapid clearance and with a particle size of the order of 1 micron most of the dye had been cleared from the liver after four days. Apart from the hazards of injecting particulate material intravenously, the preparation had little acute toxicity as indicated by weight gain, tests for liver function and histological study of the liver, spleen, lungs and kidneys.

Dermatological Preparations

Pharmaceutical science had something to contribute in all fields of medicine, but one of its most obvious applications was in dermatology. Despite a large bibliography on the penetration of substances into the skin, knowledge of the precise mechanisms involved was still scanty. Even less was known of the influence of pharmaceutical formulation on skin penetration. With the advent of more active topical medicaments, such as the corticosteroids and antibiotics, it became important to know more about the influence of formulation on the activity of the drug, its release on the skin surface, and its subsequent penetration of the horny layer. He described an investigation in which he had taken part to devise simple methods for determining the influence of the vehicle on skin penetration in human subjects. The method used had been by means of a spatula to draw a quantity of the preparation across a hole cut in thin tin sheet. A polythene square which had been placed under the tin was then removed, carrying a disc of the preparation. That was applied to the skin surface.

Results from a variety of bases and drugs indicated that it was impossible to generalise on the influence of the vehicle on skin penetration but certain points emerged. Percutaneous penetration of sparingly soluble substances like the corticosteroids was enhanced by reducing the particle size. Dissolving the medicament in a suitable solvent appeared further to

enhance the penetration. More research was needed to define precisely the required properties of the solvent and to determine the mechanism by which it increases penetration.

Committees had been set up both by the Guild of Public Pharmacists and by the Pharmaceutical Society, said Mr. Hadgraft, to encourage research in hospital pharmacy. Those efforts had had only a limited success because research could only be fostered and developed where it already existed. Research in hospital pharmacy must be allowed to grow out of the daily practice and problems with which hospital pharmacists were faced. From those origins, hospital pharmacists must be encouraged to view their scientific problems from a more critical and fundamental standpoint.

Closer Contacts With Colleagues

It was necessary also for the hospital pharmacist to develop closer contact with his academic colleagues. Schools of pharmacy had made useful contributions by organising special courses in subjects such as quality control and therapeutics, but such meetings tended to maintain the teacher-student relationship between academic and hospital pharmacist. He would like to see the relationship develop into a true partnership in which the hospital pharmacist was able to make a contribution from his special point of view.

The Department of Pharmaceutical Sciences had successfully organised a number of discussion meetings at which pharmacists had been able to meet their scientific colleagues in industrial and academic pharmacy. He would like to see hospital pharmacists taking a much more active part in such discussions.

The publications of the Society constituted another stimulus to the development of pharmaceutical science. It was obvious that not all hospital pharmacists could become members of Codex Committees, but it would be advantageous if more hospital pharmacists could be brought into the formulation work involved in producing Codex monographs. That would ensure that changes in Codex preparations were made on the basis of a wider range of experience and trial. Would it not be possible, for example, to establish some form of link between the Codex and the Hospital Pharmacists Consultative Committee established by the Ministry or some similar body representative of hospital pharmacists?

Fundamental to the whole question of developing pharmaceutical science in the hospital was the problem of man-power. Despite the roseate view sometimes taken by the Ministry of Health, there was a depressing shortage of entrants seeking to make hospital pharmacy their career. A thorough work study of the whole routine in hospital pharmacy was needed in order to clarify what the function of the pharmacist was to be in the future. Also needed was clarification of ideas on the function and training of pharmacy technicians, at present being trained on a piece-meal

basis in different hospital regions. The status of the pharmacy technician could not be changed simply by changing his name from that of dispensing assistant. The level of training of technicians needed to be looked at afresh, and a reasonable career structure provided. If safe procedures could be devised to release the pharmacist from much of the routine work, his time could be used in developing pharmaceutical science within the hospitals. Only by such means would it be possible to recruit pharmacy graduates and so maintain adequate standards of practice in hospital pharmacy.

It was necessary also to create conditions for specialisation in hospital pharmacy. As each new problem had arisen in the hospital service, the pharmacist had been represented as the expert for the job. A few years previously a central sterile supply department had become the interest of the moment. When the setting up of poisons centres had come under discussion, the pharmacist was regarded as the expert in drugs. Currently attention was being focused on quality control, and pharmacists were busy becoming pharmaceutical analysts. "Apart from making some of us schizophrenic about which particular hat we are wearing at any given time, we have not really achieved the recognition we deserve in any of those fields. We have not been wrong in stating the pharmacist's potentiality to become an expert in those fields. What is wrong is the claustrophobic structure of hospital pharmacy, which does not permit the pharmacist to specialise in one particular direction and still retain an incentive to stay in hospital pharmacy." The larger hospitals should be able to sustain a staff of pharmacists specialised in different fields of activity and become centres for post-graduate study in pharmacy in the same way as they now catered for post-graduate studies in medicine.

Pharmacists should see the wider social implications of their profession. Just as pure science had made its major contributions when it had been intimately concerned with the most urgent problems of society, so pharmacy flourished when it was in contact with human needs. The first concern, therefore, should be for the patient. From answering his needs would come the profession's true fulfilment.

N.H.S. STATISTICS

In BARROW during August 30,079 prescriptions (19,686 forms) were dispensed. Total cost was £16,641, an average of 132.78d. per prescription.

In DORSET during August 125,322 prescriptions (82,030 forms) were dispensed. Total cost was £72,683. Average cost per prescription was 139.19d.

In ENGLAND during July 18,681,761 prescriptions (12,312,921 forms) were dispensed at a total cost of £10,052,545. Average cost per prescription 129.14d. The respective figures for January-July inclusive were 143,351,140 prescriptions (93,857,523 forms) totalling £75,287,481 and averaging 126.05d.

MEDICAL PREPARATIONS IN EIRE

Scope of control extended

THE Minister of Health for Eire has made new regulations under section 65 of the Health Act, 1947, extending the list of preparations that may be sold only on prescription.

The regulations — the Medical Preparations (Control of Sale) Regulations, 1966, (available from the Stationery Office, Dublin, price 1s. 6d.) — come into force on January 2, 1967. They revoke the Medical Preparations (Cortisone and ACTH) Regulations, 1952; the Medical Preparations (Barbiturates) Regulations, 1954; the Medical Preparations (Oral Diabetic Treatments) Regulations, 1956 and the Medical Preparations (Control of Sale) Regulations, 1963.

The new Regulations make the following substances (and preparations containing them) available by retail only on medical, dental or veterinary prescription:—

FIRST SCHEDULE

Substances to be available to the public on prescription only.

PART A

Allylisopropylacetylurea, Amidopyrine; its salts; amidopyrine sulphonates; their salts.

β -Aminopropylbenzene, and β -aminoisopropylbenzene and any compound structurally derived from either of these substances by substitution in the side chain or by ring closure therein (or by both such substitution and such closure), except ephedrine, *N*-methylephedrine, *N*-diethylaminoethylephedrine, phenylpropanolamine, and prenalamine; any salt of any such substance

Antibiotics, the following; their salts; their derivatives; salts of their derivatives except when intended for agricultural, horticultural or veterinary use or in feed supplements for veterinary use:—

Amphotericine	Novobiocin
Bacitracin	Nystatin
Cephalosporin	Oleandomycin
Chloramphenicol	Paromomycin
Colistin	Penicillins
Cycloserine	Polymyxins
Dihydrostreptomycin	Ristocetins
Erythromycin	Spiramycin
Fusidic acid	Streptomycin
Griseofulvin	Tetracycline
Kanamycin	Vancomycin
Neomycin	Viomycin

Barbituric acid; its salts; derivatives of barbituric acid; their salts; compounds of barbituric acid (including its salts and derivatives and salts of its derivatives), with any other substance except (i) any of the substances comprised in this entry when in combination with any other active substance which is not a substance included in this Schedule and (ii) mixtures containing any of the said substances designed solely for veterinary use provided the words "not for human use" are distinctly written on the container in which the mixture is sold or on a label affixed thereto

Busulphan; its salts Hexamethonium; its salts
Carbamazole salts
Chlorisondamine; its salts
Iproniazid; its salts
Methimazole
Dimethylsulfoxide
Methocarbamol
Ethyl biscouacetate
Methylthiouracil
Glutethimide; its salts

Mustine and any other *N*-substituted derivatives of di (2-chloroethyl) amine; their salts
Nicoumalone
Pentolinium; its salts
Nitrofurantoin
Phenindione
Oxyphenbutazone
Phenprocoumon
Paramethadione
Phenylbutazone; its salts
Pempidine; its salts

Phenylcinchoninic acid, salicylcinchoninic acid, their salts, their esters.

Pituitary gland; the active principles of; their salts, except when contained in preparations intended for external application only or in inhalants or rectal ointments or eye lotions or preparations intended for use as eye lotions.
Propylthiouracil

Rauwolfia; alkaloids of; their salts, derivatives of the alkaloids of rauwolfia; their salts
Substances with adrenocortical or androgenic or oestrogenic or progestational activity, the following (not being a substance intended solely for external use or a progesterone preparation for use solely in the treatment of sheep fertility or stilboestrol and its esters):—

Benzoestrol,	
Derivatives of stilbene dibenzyl or naphthalene with oestrogenic activity; their esters,	
Steroid compounds, with adrenocortical or androgenic or oestrogenic or progestational activity; their esters	
Sulphinpyrazone	Troxidone
Thalidomide; its salts	Warfarin sodium
Thiouracil	

PART B

Acetohexamide
Acetylcarbromal
p-Aminobenzenesulphonamide; its salts; derivatives of *p*-aminobenzenesulphonamide having any of the hydrogen atoms of the *p*-amino group or of the sulphonamide group substituted by another radical; their salts; except when contained in ointments or surgical dressings or when intended for the prevention and treatment of disease in animals including poultry or in feeding stuffs containing not more than 0.5 per cent. of total sulphonamides

Amiripryline; its salts; Azacyclonol; its salts
Barbituric acid (including its salts and derivatives and salts of its derivatives) in combination with any other active substance not being a substance included in this Schedule
Benactyzine; its salts
Carisoprodol

Bretylum tosylate
Chloridiazepoxide; its salts
Bromvaletone
Cloroxolone
Captadine; its salts
Chlormethiazole; its salts
Carbromal
Carbutamide

Chlorothiazide and other derivatives of benzo-1, 2, 4-thiadiazine-7-sulphonamide 1, 1-dioxide, whether hydrogenated or not
Chlorpheniramine; its salts
Clorprothixene
Chlorthalidone
Chlorpropamide; its salts
Desipramine; its salts

Diazepam and other compounds containing the chemical structure of dihydro-1, 4-benzodiazepine substituted to any degree; their salts

Ethylcamate
Ethchlorvynol
Ethinamate
Guanethidine, its salts
Haloperidol and other 4-substituted derivatives of *N*-(3-*p*-fluorobenzoylpropyl) piperidine. Hydrazines, benzyl phenethyl and phenoxyethyl; their α -methyl derivatives; acyl derivatives of any of the foregoing substances comprised in this entry; salts of any compounds comprised in this entry

Hydroxyzine; its salts
Methypyrilone
Imipramine; its salts
Nalidixic acid
Indomethacin; its salts
Nortriptyline; its salts
Mefenamic acid
Orphenadrine; its salts
Mephensin; its esters
Meprobenamate
Metformin; its salts
Pargyline; its salts
Methaqualone; its salts
Pemoline; its salts
Methylpentynol; its salts
Phenbutazate
esters and other
Phenformin; its salts
derivatives

Phenothiazine; derivatives of; their salts; except dimethoxanate; its salts and promethazine, its salts and molecular compounds (except any of the foregoing substances when intended for the prevention and treatment of diseases in animals including poultry)

5-Phenylhydantoin
its Prothipendyl; its salts
alkyl and aryl derivatives
Quinethazone
Styramate

Tetrabenazine; its active principles
salts of; their salts
Thyroid gland; the Tolbutamide

Substances in Part A, and preparations containing them, may be dispensed on one occasion only unless otherwise prescribed; if the prescription indicates that it is to be repeated, without specifying how often or at what intervals, then it may be repeated on three occasions only and at intervals of not less than three days. Substances in Part B, and preparations containing them, may, unless otherwise stated on the prescription, continue to be dispensed over the period of six months following the date of prescription, at such intervals as the pharmacist may deem appropriate having regard to the dosage rate. The usual provisions (which apply at present, for instance, in the case of barbiturates and cortisone) regarding the marking of the prescription and its retention by the pharmacist for a period of two years will apply to prescriptions in both groups.

The Regulations also provide that the following substances, and preparations containing them, may be sold by retail only by pharmaceutical chemists, dispensing chemists and druggists and registered druggists.

SECOND SCHEDULE

Substances, the retail sale of which is to be restricted to pharmaceutical chemists and other similarly qualified persons.

The following; their salts; their molecular compounds; and preparations containing them:

Antazoline	Diphenylpyraline
Bromodiphenhydramine	Doxylamine
Bucizine	Isothipendyl
Carbinoxamine	Mebhydrolin
Chlorcyclizine	Meclozine
Chlorpheniramine	Phenindamine
Cinnarizine	Pheniramine
Clemizole	Phenyltoloxamine
Cyclizine	Promethazine
Cyproheptadine	Pyrobutamine
3-Di- <i>n</i> -butylamino-methyl-4:5:6-tri-hydroxyphthalide	Tolpropamine
Diphenhydramine	Tripolidine

Substances being tetra-substituted *N* derivatives of ethylenediamine or propylenediamine.

Containers and packets of those substances, and of preparations containing them, must be labelled with a statement of their contents, as in the case of other medicines; and, in addition, with the name of the seller and the address of the premises on which they are sold and with whichever of the following cautionary notices is appropriate:—

(i) On a preparation containing a substance which is intended solely and made up ready for the prevention of motion sickness and is not made up by the person dispensing it:—"Caution. This may cause drowsiness" or words to that effect, or

(ii) On a preparation (other than a preparation referred to in the foregoing subparagraph) which is intended for the internal treatment of human ailments and is not made up by the person dispensing it:—"Caution. It is inadvisable to take this preparation except under medical supervision" or words to that effect.

Note to Year-book Users

The introduction of the above regulations render obsolete the entry under "Republic of Ireland" on p. 230 of *The C. & D. Year-book*, 1967.

THE MARKETS IN 1966

Shortages of many crude drugs, an easier tendency in essential oils and a general lack of interest in pharmaceutical chemicals were the principal features of a credit-tight year

THE year that has just ended was yet another difficult one for business. Over-shadowing everything was the country's balance of payments problem — too many imports with too few exports.

The situation was further aggravated by a long strike of seamen. Stern financial measures were taken in the Budget and again in July, and a new tax (selective employment) came into force on September 1. All those things had a dampening effect on the economy and made things most difficult for anyone wanting credit unless it was to finance something for export. The only bright spot — and that at the very end of the year — was the removal of the temporary import surcharge after a life of two years. The effects, however, have still to be seen in official statistics, since the effective date was December 1. The stern measures applied seem, in the latest figures, to be achieving their objective.

Crude Drugs

A feature among CRUDE DRUGS was the firm tone displayed by North American produce. Difficulties in recruiting labour for collection, together with drought conditions, caused crop deliveries to be short and to arrive later than usual. The price recession normally associated with the arrivals of new crops did not materialise to any extent. CASCARA was offered in September at 245s. per cwt., c.i.f., and that figure was at the same level as the last quotation for 1965 peel. WITCH HAZEL LEAVES at the close of the year were nominally 6s. 6d. per lb. or nearly double the price operative a year ago. SENEGA, at 29s. 6d. per lb., was 50 per cent. up, and spot supplies were frequently exhausted from March onwards. Unlike previous years, 1966 produced an acute shortage of VALERIAN ROOT, whether from the Continent or from India. Two rises of 25s. per cwt. in February were followed in succeeding months by similar rises, Continental reaching 550s. per cwt. for spot and Indian 500s. Re-

placement offers came from India during July at a level of 300s., c.i.f., followed a month later by Continental at 550s., c.i.f. and, as replacements came nearer to hand, prices gradually fell, closing at 245s. and 490s., c.i.f., respectively. KOLA NUTS were unobtainable until mid-June, when replacements were received. There was little demand for Cape ALOES, and prices varied only slightly, but the Curaçao variety, which was quoted about the same level as Cape, moved up in September and again in December. There was a poor crop of BUCHU, and supplies were hard to get for distillation, particularly towards the end of the year. SAFFRON did not fluctuate so much as in 1965, but the price nevertheless rose 225s. per lb. over the year. ACONITE ROOT, unchanged in years, was also firm. BEL-LADONNA, on the other hand, showed an easier trend. Dutch LOBELIA was available at about half the price of the American. PERU BALSAM, which shot up in 1965, began to fall in February and, though there was the occasional rise, falls predominated to make the December level 16s. 6d. per lb. against 29s. 6d. Tinnevely SENNA quotations were steady, and in some instances even advanced as a result of a small new crop, with the consequence that an advantage which should have accrued to importers of the commodity, following the devaluation of the Indian rupee, was lost. Among the various sources of IPECACUANHA, Costa Rican appeared to set the pace in prices; beginning the year at 64s. per lb. it touched a peak of 84s. in mid-June before, falling back to a low of 60s. in December. LANOLIN was reduced slightly following a fall in the United States. MERCURY, which soared to £265 a flask in 1965, following a shortage of supplies, fell by stages till in June it was around £100. In the second half of the year, however, conditions changed and the value went ahead, reaching £200 by November, only to fall back a little later.

Constant Fluctuation

From a glance at the table below it would appear that MENTHOL moved only slightly, but that was not so: scarcely a week passed without some change. The highest point for Chinese was in February, when material for shipment was quoted at 35s., c.i.f., per lb. Brazilian touched 40s., c.i.f., at the end of January but thereafter values eased and by November Brazilian and Chinese quotations were at about par for the first time for several years. Jamaican GINGER began on the spot at 390s. per cwt. and ended about 250s., even though there were no shipment offers from September onwards, the quiet market conditions preventing any rise in spot values. The Cochin variety fell from 265—270s. in the first quarter to 220s. at the close of the year.

Among AROMATIC SEEDS little business was done in Turkish ANISE and

practically nothing in Spanish, because of the high prices quoted. Small trading was reported in CARAWAY, with the price more or less unchanged. Sales of CELERY were not so large as expected, buying by the United States and Canada being on a limited scale. Morocco was reported to have sold large quantities of CORIANDER to India, hence an increase in the price for shipment. Sales of CUMIN were not up to expectations; Iran had a fairly good crop and was competitive with Morocco and Cyprus. DILL was neglected, home demands being small. Forward offers of Chinese FENNEL were under those of India. The Moroccan FENUGREEK crop proved small, and though early estimates of English MUSTARD were good, heavy rains towards the end of the harvest made the better qualities hard to find.

Essential oils

ESSENTIAL OIL prices generally declined during 1966, exceptions being Brazilian BOIS DE ROSE, which gained 2s. per lb., and American PEPPERMINT and SPEARMINT, the firmness of both of which was a little surprising in view of the good crops reported. Domestic demand was said to have been particularly heavy leaving, little surplus for export. LEMONGRASS slipped from about 31s. per kilo in the early months of the year to 22s. 6d. in May. There was then a short-term recovery to 26s. before the price dropped to the previous low level. The CITRONELLAS varied only slightly, and the aggregate change on the year amounted to only a few pence. Chinese *Arvensis* on the spot reached a peak of 14s. per lb. in early February, the lowest price being 10s. 6d. from November onwards. The equivalent high and low rates for Brazilian were 15s. 6d. and 10s. 3d. Greatest falls were noted in BERGAMOT and PATCHOULI, both of which made phenomenal gains in 1965, when stocks were scarce or unobtainable. PALMAROSA, unobtainable a year ago, came on offer in mid-January, when shippers asked 170s. per kilo against the previous asking price of 110s.; the price

Crude Drugs		Dec. 1965		Dec. 1966
	per s. d. s. d.			
Aloes, Cape ...	cwt.	265 0	235 0	
Cardamoms (A.g.)	lb.	32 6	22 0	
Cascara ...	cwt.	225 0	245 0	
Cochineal:				
Peruvian (s.g.)...	lb.	15 0	13 0	
Canary Isles (s.g.)	„	19 0	15 6	
Ginger:				
No. 3 Jamaican	cwt.	420 0	255 0	
Ipecacuanha (c.i.f.):				
Colombian ...	lb.	54 0	52 6	
Costa Rican ...	„	70 0	61 0	
Menthol (c.i.f.):				
Chinese ...	„	28 9	29 6	
Brazilian...	„	30 0	29 6	
Mercury ...	76-lb.	4,000 0	4,000 0†	
Senega ...	lb.	20 6	29 6	

† nominal

Essential Oils		Dec. 1965		Dec. 1966
	per s. d. s. d.			
Anise ...	lb.	9 3	9 3	
Bergamot ...	„	170 0	108 0	
Bois de rose ...	„	16 4½	18 6	
Citronella:				
Ceylon ...	„	4 7½	4 0	
Formosan*	„	4 3	4 5	
Lemongrass ...	kilo	31 0†	23 6	
Patchouli ...	lb.	102 6†	52 6	
Peppermint:				
Chinese ...	„	12 3	10 6	
Brazilian...	„	13 6	10 6	
American ...	„	49 0	56 0	
Sandalwood:				
Mysore ...	„	108 0	107 6	

* in bond † nominal

was to rise to 185s. before, in mid-June, there began a long succession of falls to the current rate of 117s. 6d. Good crops were reported during the year for LAVENDER and LAVANDIN. Sicilian LEMON and Florida ORANGE were also good crops, but the effects of the latter on the price of the oil will not be seen until the New Year. Elsewhere in CITRUS OILS, LIME was a firm market throughout.

Pharmaceutical Chemicals

One of the few features in PHARMACEUTICAL CHEMICALS was provided by QUININE and QUINIDINE. Although at peak prices by the end of 1965, they underwent further increases in January April and June, during which period the SULPHATE rose from 16s. 3d. per oz. to 21s. 7d. (even higher for imported material). Chief demand came from the United States, which was said to be requiring large quantities for the troops in Vietnam. The high prices caused an outcry in the U.S. and whether because of it or to because speculators were getting out of the market the prices became subject to falls

in America during June though in Britain lower prices did not operate until the end of November, sulphate being then at 18s. 4d. The 'freeze' on prices imposed by the Government prevented many changes that might otherwise have taken place, though manufacturers using imported material could recoup themselves for any increase in their costs. Thus MERCURIALS frequently moved up with the rising cost of mercury and down — as the metal went lower. At one time a leading manufacturer withdrew prices because of the unstable position of the metal. As in previous years most of heavier-selling VITAMINS showed an easier tendency. ANEURINE HYDROCHLORIDE was reduced in March and July; PYRIDOXINE in March, April and August (with an increase in October); RIBOFLAVINE in March and August and ASCORBIC ACID in August. TANNIC ACID was threepence to 1s. 3d. per lb. dearer in March. BRUCINE was increased in April and supplies were tight for most of the time, though some easing in the situation was noticed by the end of the year. A world-wide shortage of

SULPHUR put up the cost of SULPHURIC ACID and imports had to be made in order to reduce the gap between demand and production.

Pharmaceutical Chemicals			Dec. 1965		Dec. 1966	
			s.	d.	s.	d.
A neurine hcl.	...	per kilo	118	6	102	0
Aspirin	...	lb.	4	0½	4	0½
Bismuth carb.	...	kilo	77	10	77	10
Calomel	...	"	146	0	141	5
Citric acid	...	cwt.	214	0	214	0
Cream of tartar	...	"	241	0	241	0
Cyanocobalamin	...	gm.	52	6	52	6
Glycerin	...	cwt.	195	0	195	0
Nicotinic acid	...	kilo	32	0	31	0
Pot. bromide	...	"	5	8	5	8
Pot. citrate	...	"	5	7	5	7
Pot. iodide	...	"	21	6	21	6
Prednisolone	...	gm.	7	0	7	0
Pyridoxine	...	kilo	450	0	262	6
Quinine sulph.	...	oz.	16	5½	18	4
Riboflavin	...	kilo	217	6	187	6
Sodium salicylate	...	lb.	3	11	3	11
Zinc oxide	...	cwt.	131	6	131	6

† nominal

TRADE REPORT

The prices given are those obtained by importers or manufacturers for bulk quantities or original packages. Various charges have to be added whereby values are augmented before wholesale dealers receive the goods into stock.

LONDON, DECEMBER 28: Most CRUDE DRUG prices have scarcely been tested since the issue of the last Trade Report, Cape ALOES were unchanged but CURACAO rose another 5s. to 395s. per cwt. with virtually no shipment offers. DANDELION ROOT was also 5s. per cwt. dearer but VALERIAN, both Indian and Continental (for shipment) were lower by 5s. There were no offers of ACONITE ROOT from origin and spot holders were asking 3s. 6d. per lb. against 3s. 3d. previously. PERU BALSAM was further reduced to varying levels according to holder.

In ESSENTIAL OILS the main feature was provided by PALMAROSA which jumped 10s. lb. on active buying. For several months prices of the oil have been declining and it would appear that the level had become attractive to buyers. Florida sweet ORANGE is expected to be cheaper in the New Year with original drums at around 4s. 6d. per lb. There has been more activity in GRAPEFRUIT in the United States and whilst the price was unchanged it was certainly firm.

There is to be a sharp reduction in the price of PYRIDOXINE HYDROCHLORIDE from January 2, 1967, the fall being of the order of 70s. to 80s. per kilo depending on quantity. GLYCERIN prices are being increased by £10 ton from the same date.

Pharmaceutical Chemicals

CALAMINE.—50-kilo lots, 4s. 3½d. per kilo; 1,000 kilo, 4s. 2½d. kilo.

CANTHARIDIN.—Per oz. 327s. 6d. for 4-oz. lots.

CARMINE.—One-cwt. lots are quoted at 180s. per lb.

CHARCOAL.—Medicinal activated, B.P.C. in 1-cwt. lots, £22 10s. per cwt.

CHLORAL HYDRATE.—One-cwt. lots quoted at 4s. 4d. per lb.

GLYCERIN.—Dearer. Chemically pure, B.P. (per cwt.).

	Over 25 tons		5 tons and under 25 tons		1 ton and under 5 tons		Under 1 ton	
	s.	d.	s.	d.	s.	d.	s.	d.
TANK WAGONS								
10-14 tons	196	0	—	—	—	—	—	—
5-10 tons	197	6	199	6	—	—	—	—
DRUMS								
5 cwt.	200	0	202	0	205	0	211	0
22 cwt.	203	0	205	0	208	0	214	0
TINS								
56 lb.	207	0	209	0	212	0	218	0
28 lb.	229	0	231	0	236	0	245	0
14 lb.	233	0	235	0	240	0	249	0

Minimum delivery 2½ cwt. Drums charged and returnable. Tins and cases free. Minimum terms for technical grade glycerin s.g. 1.2627 are 191s. per cwt. for lots of over 25 tons in bulk deliveries of 10-14 tons.

PYRIDOXINE.—Lower. One kilo, 185s. per kilo; 10 kilos, 182s. 6d.; 25 kilos upwards, 177s. 6d., per kilo.

THEOPHYLLINE.—B.P., 50-kilo lots, 31s. per kilo; HYDRATE, B.P., 30s. and AMINO-PHYLLINE, 30s. per kilo.

Crude Drugs

ACONITE.—Short on spot. Spanish *napellus* quoted at 3s. 6d. per lb.; no shipment offers.

ALOES.—(Per cwt.). Cape primes, spot 235s.; shipment, 225s., c.i.f. and Curacao 395s. spot; shipment, 375s., c.i.f.

BALSAMS.—(Per lb.): CANADA: Shipment, cleared; spot, 29s. 6d. COPAIBA: B.P.C. spot, 12s. 6d.; shipment, 8s., c.i.f.; PERU: 15s. 6d., spot; shipment, January-February, 13s. 9d., c.i.f.; TOLU: B.P., from 12s. 6d.

DANDELION.—Root is 165s. per cwt., spot; shipment, 160s., c.i.f.

GUM ACACIA.—Kordofan cleaned sorts, 187s. 6d. per cwt., spot; shipment, 163s. to 178s. c.i.f., as to grade.

SEEDS.—(Per cwt.).—ANISE.—Turkish, 187s. 6d., duty paid. CARAWAY.—Dutch 157s. 6d., spot. CELERY.—Indian offered at 150s., spot; shipment, 140s., c.i.f. CORIANDER.—Spot, duty paid: Moroccan, 115s.; Rumanian, whole 125s., splits, 115s.; Moroccan for shipment, 95s., c.i.f. CUMIN.—Spot, Cyprian, 285s.; Indian, 290s.; Moroc-

can, 290s., duty paid. DILL.—Indian, 120s., spot, nominal. FENNEL.—Chinese, 130s., duty paid; shipment Chinese, 110s., c.i.f.; Indian, 132s. 6d., c.i.f. FENUGREEK.—Moroccan, quoted at 80s., duty paid; shipment, 67s. 6d., c.i.f. MUSTARD.—English is in short supply for all qualities. 75s. to 95s., quoted.

Essential and Expressed Oils

ANISE.—Chinese 9s. 6d. per lb., spot, shipments 9s. 2d., c.i.f.

CADE.—Spanish from 2s. per lb. for drum lots.

CAJUPUT.—Spot from 10s. 6d. to 14s. per lb.

CALAMUS.—Spot from 55s. to 60s. per lb, GERANIUM.—Bourbon, 85s. to 87s. 6d., spot; Algerian, 75s.

GINGER.—Imported (per lb.); Indian, 165s.; Chinese, 75s.; Jamaican, 132s. 6d.

GRAPEFRUIT.—West Indian small lots on spot at 12s. 9d. per lb. Florida, 14s.

LAVANDIN.—Spanish from 20s. to 27s. per lb., as to quality.

LAVENDER.—French from 40s. to 60s. per lb, as to quality.

LIME.—West Indian distilled, 73s.-74s. per lb. on the spot.

NUTMEG.—East Indian B.P. oil is about 73s. per lb. English distilled, 110s.

PALMAROSA.—Shipment, 127s. 6d. per kilo, c.i.f.; spot, 140s.

PEPPERMINT.—(Per lb.). *Arvensis*: Chinese for shipment, 10s., c.i.f.; spot, 10s. Brazilian for shipment, 10s., c.i.f.; spot, 10s. *Piperita*: Italian spot, 75s.; forward shipment, 82s. 6d. American from 36s. to 56s., as to source.

VETIVERT.—Bourbon, spot, 85s. per lb.

UNITED STATES REPORT

NEW YORK, DECEMBER 20: The major feature among crude drugs was an increase of \$5 in CANADA BALSAM to \$40 per gall. A 75-cent increase in SANDALWOOD OIL pushed spot prices up to between \$17.75 and \$19.00 per lb.

PATENTS

COMPLETE SPECIFICATIONS ACCEPTED

From the "Official Journal (Patents)," Nov. 30.

Sachet and like packs. Aspro-Nicholas, Ltd. 1,054,808.*Method for inhibiting the growth of fungi.* Stauffer Chemical Co. 1,054,816.*1-substituted 3-dialkylaminoalkoxyindazoles and a method for the preparation thereof.* I. Angelini. 1,054,833.*Production of pure sodium metabisulphite and sodium sulphite.* Badische Anilin- & Soda-Fabrik, A.G. 1,054,835.*Method of preparing new derivatives of 3, 5-dioxo-pyrazolidine.* Spofa, Sdruzeni Podniki pro Zdravotnickou Vyrobu. 1,054,862.*Compositions of organo-thiophosphorus compounds and method for controlling the odour of such compounds.* Dow Chemical Co. 1,054,868.*Travel and motion sickness remedies and preventatives.* Aspro-Nicholas, Ltd. 1,054,900.*Aluminium. N-(3-trifluoromethylphenyl) anthranilate.* Taisho Pharmaceutical Co., Ltd. 1,054,906.*Agricultural miticidal compositions containing chlorodiphenyl-azosulphide compounds.* Nippon Soda, K.K. 1,054,941.*Antimycotic compositions.* Norwich Pharmacal Co. 1,054,943.*Process for preparing chloromethyl 5-nitro-2-furyl ketone.* Norwich Pharmacal Co. 1,054,944.*Dry shaver.* R. L. Tweedale. 1,054,947.*Setting indication for photographic cameras.* Pentagon Dresden Kamera und Kinowerke Veb. 1,054,971.*Capsule forming and filling apparatus.* R. P. Scherer Corporation. 1,054,977.*Machines for making swabs with cotton tips.* Johnson & Johnson. 1,055,018.*Therapeutic composition containing gibberellin of utility in protein deficiency conditions and states of stress.* Laboratoires Laroche Navaron. 1,055,024.*Catheters.* Willy Rusch. 1,055,026.*Hair treating method.* Gillette Co. 1,055,050.*4-[1'-lower alkyl-piperidylidene-(4'')-9, 10-dihydro-4H-benzo [4, 5] cyclohepta-[1, 2, b] thiophene derivatives.* Sandoz Patent, Ltd. 1,055,055.*Benzo-cyclohepta-thiophene derivatives and method of producing them.* Sandoz Patents, Ltd. 1,055,056.*Benzo-cyclohepta-thiophene derivative and method of producing it.* Sandoz Patents, Ltd. 1,055,057.*Process for producing α -hydroxy-glutaronitrile and its alkyl-substituted derivatives.* Asahi Kasei Kogyo, K.K. 1,055,060.*Process and apparatus for the preparation of 2-chloro-butadiene-1:3.* Farbenfabriken Bayer, A.G. 1,055,064.*6-(3, 4-methylenedioxyethyl)-3-mercapto-5-hydroxy 1, 2, 4 triazine and the preparation thereof.* Spofa, Sdruzeni Podniki pro Zdravotnickou Vyrobu. 1,055,070.*Production of blasticidins by cultivation of a strain of streptomycetes.* Meiji Seika Kaisha, Ltd. 1,055,077.*17 β - Methyl - 20-alkyl - 18-nor-17 α - pregnenes.* Abbott Laboratories. 1,055,078.*Heterocyclic esters of phosphorous acids, their preparation and use, and pesticidal compositions containing them.* Shell Internationale Research Maatschappij, N.V. 1,055,093.*Phosphorus-containing esters.* Shell Internationale Research Maatschappij, N.V. 1,055,094.*1, 4-disubstituted piperazines and diazepines and process for preparing them.* Janssen Pharmaceutica, N.V. 1,055,100.

British patent specifications relating to the above will be obtainable, (price 4s. 6d. each) from the Patent office, 23 Southampton Buildings, Chancery Lane, London, W.C.2, from January 11, 1967.

From the "Official Journal (Patents)," Dec. 7
Quaternary ammonium compounds. Witco Chemical Co., Inc. 1,055,128.

Photographic processes and photographic sensitive materials therefor. Kodak, Ltd. 1,055,144.

Process for the production of ester salts. Chemische Werke Hülls, A.G. 1,055,159.

Camera objectives. Leningradsky Institute Tochnoi Merkhani i. Optiki. 1,055,172.

Sensitized photographic silver halide emulsions. Eastman Kodak Co. 1,055,180.

Benzoazole derivatives and their use as optical brighteners. Farbwerke Hoechst, A.G. 1,055,183.

Process for the manufacture of 2-styryl-oxazole compounds. Farbwerke Hoechst, A.G. 1,055,184.

Compounds of fluorine. Allied Chemical Corporation. 1,055,190.

Separation of a mixture of molecules having different weights. Centre National de la Recherche Scientifique. 1,055,192.

β -Carboline derivatives, a process for their manufacture and compositions containing them. Imperial Chemical Industries, Ltd. 1,055,203.

Triarylboranes. M. & T. Chemicals, Inc. 1,055,207.

Cyclobutanones. Eastman Kodak, Co. 1,055,209.

1,2,31-benzotriazine-3H, 4-ones. Dr. Karl Thomae, G.m.b.H. 1,055,212.

Process for the preparation of metaldehyde. Lonza, Ltd. 1,055,219.

Pyridobenzoxazepine derivatives. Dr. Karl Thomae, G.m.b.H. 1,055,221.

Photographic lens of large aperture ratio and having a long back focal length. Nippon Kogaku, K.K. 1,055,222.

Process for polymerising ethylenically unsaturated compounds. Eastman Kodak, Co. 1,055,242.

Fluoro-substituted steroids and their production. E. I. Du Pont De Nemours & Co. 1,055,244.

19-Halo-10 α -androstane compounds. Syntex Corporation. 1,055,245.

Method of preparing chloromethylated aromatic ethers. Dow Chemical, Co. 1,055,246.

19-Nor-9 β ,10 α -pregnane compounds. Syntex Corporation. 1,055,253.

Process for the production of anti-inflammatory substances from mammalian eosinophils. National Research Development Corporation. 1,055,269.

Phosphorus-containing poly-ethers. Allied Chemical Corporation. 1,055,272.

Process for the continuous manufacture of chlorinated hydrocarbons. Farbwerke Hoechst, A.G. 1,055,273.

Method and means for the early diagnosis of pregnancy in farm animals. W. Jöchle. 1,055,274.

Derivatives of 2-hydroxy-3,5-dinitro-benzyl alcohol. Boehringer Ingelheim, G.m.b.H. 1,055,279.

Photographic apparatus. Minnesota Mining & Manufacturing Co. 1,055,331.

Process for preparing amino-azido-triazinyl amino phosphoramides. Deutsche Gold-und Silber - Scheideanstalt. 1,055,336.

Substituted succinic acid esters. Lubrizol Corporation. 1,055,337.

Method for producing granular products. International Minerals & Chemical Corporation. 1,055,347.

Process for the preparation of 3-hydroxy- and 3-alkoxy-estratrienes and intermediates therefor. Francesco Vismara S.p.A. 1,055,353.

Process of producing allergen preparations. Cernelle A.B. 1,055,378.

Biological sterility indicator and method for using same. Wilmot Castle Co. 1,055,387.

Apparatus for destroying limited groups of cells. G. A. D. Gordon. 1,055,391.

Process of preparing chlorinated hydrocarbons. Japan Atomic Energy Research Institute and Kanto Denka Kogyo Co. Ltd. 1,055,410.

Pharmaceutical compositions containing acyl tryptamine derivatives and new acyl tryptamine derivatives and processes for their manufacture. Imperial Chemical Industries, Ltd. 1,055,413.

Allergenic aerosol compositions. Vantrex, Ltd. 1,055,465.

Sterilisers for surgical instruments. Associated Electrical Industries, Ltd. 1,055,466.

Dibenzocycloheptene derivatives and their preparation. Merck & Co., Inc. 1,055,469.

Medical applicators. A.I.W.H. Bloxham. 1,055,471.

Process for the production of corticoid-21-esters. Dr. Karl Thomae, G.m.b.H. 1,055,492.

Tooth brush. Statter Projects Pty., Ltd. 1,055,501.

Preparation of 3-pyrazo-lidinones. Gavaert Photo-Producten, N.V. 1,055,531.

Method of drying a hydrogel. Mizusawa Kagaku Kogyo, K.K. 1,055,533.

Steroids and the manufacture thereof. Upjohn Co. 1,055,534.

Method for protecting plants against fungi and composition for use therein. Eli Lilly & Co. 1,055,535.

Substituted 1-aryl-31 aminopropynes and process for their preparation. Aziende Chimiche Ruinite Angelini Francesco. 1,055,548.

Esterification. Armour & Co. 1,055,549.

Photographic medium and methods of preparing same. Technical Operations, Inc. 1,055,590.

Phenyl-N-methyl carbamic acid esters. Farbenfabriken Bayer, A.G. 1,055,603.

Oleandomycin acyl ester. N-oxides. Chas. Pfizer & Co., Inc. 1,055,615.

N-methylated derivatives of basic antibiotics. Recherche et Industrie Therapeutiques R.I.T. 1,055,616.

Mono-azo colour couplers. Fuji Shashin Film, K.K. 1,055,617.

Magazine for a motion-picture camera. Fuji Shashin Film, K.K. 1,055,618.

Urea derivatives. Imperial Chemical Industries, Ltd. 1,055,619.

Herbicidal composition and method of preparing the same. D. O. Guth. 1,055,620.

Compressed or agglomerated fertilizer materials. A. G. Wintershall. 1,055,661.

Photographic materials. General Aniline & Film Corporation. 1,055,664.

Cosmetic applicator. R. W. Brittain. 1,055,686.

Photographic materials. Gevaert Photo-Producten, N.V. 1,055,713.

Stabilising agents, fog-inhibiting agents, and anti-bronzing agents for photographic materials. Gevaert Photo-Producten, N.V. 1,055,715.

Basic ethers of 3,4-diarylcoumarins. Upjohn Co. 1,055,726.

Pharmaceutical compositions comprising substituted urea derivatives. Imperial Chemical Industries, Ltd. 1,055,741.

Preparations of 4-amino 5-phenyl-1-pentene compounds. Richardson-Merrell, Inc. 1,055,769.

Urea derivatives. Imperial Chemical Industries, Ltd. 1,055,786.

Photographic camera with automatically and manually settable diaphragm. Pentacon Dresden Kamera-und, Kinowerke Veb. 1,055,806.

Granular fertilisers. Scottish Agricultural Industries, Ltd. 1,055,816.

Photographic apparatus. Cedars of Lebanon-Mt. Sinai Hospitals of the Los Angeles Jewish Medical Center. 1,055,852.

Water-dispersible veterinary preparations and a process for their manufacture. F. Hoffmann-La Roche & Co., A.G. 1,055,854.

Ammonia - epichlorohydrin anion - exchange resins. Dow Chemical Co. 1,055,860.

Slide projectors. Voigtländer, A.G. 1,055,869.

Preparation of carbonylhydrazide. Whiffen & Sons, Ltd. 1,055,879.

Interferon purification. Glaxo Laboratories, Ltd. 1,055,895.

Silicon absorbents in interferon purification and/or concentration. Glaxo Laboratories, Ltd. 1,055,896.

Sensitive photographic materials. Eastman Kodak Co. 1,055,920.

Stable emulsions containing electrolytes. General Aniline Film Corporation. 1,055,925.

Class of steroid compounds. Roussel-Uclaf. 1,055,926.

24-Nor-5 β -cholane steroids. Roussel-Uclaf. 1,055,927.

Pesticidal dispersions. Union Carbide Corporation. 1,055,934.

British patent specifications relating to the above will be obtainable (price 4s. 6d. each) from the Patent Office, 23 Southampton Buildings, Chancery Lane, London, W.C.2, from January 18.

- From the "Official Journal (Patents)," Dec. 14.
Process for the manufacture of organic percarbonates. Farbwerke Hoechst, A.G. 1,055,985.
- Process for the preparation of adipic acid.* Montecatini Soc. Generale per L'Industria Mineraria e. Chimica. 1,055,997.
- Navel bandages.* M. Gamper. 1,056,009.
- 5-Amino-alkyl dibenzodiazepinones.* Upjohn Co. 1,056,043.
- 5,10-Disubstituted dibenzodiazepinones.* Upjohn Co. 1,056,044.
- 5-Amino-alkyl dibenzodiazepines.* Upjohn Co. 1,056,045.
- Hydrocarbyl N - (aminoalkyl) - N - (2 - amino-phenyl) anthranilates.* Upjohn, Co. 1,056,046.
- Cyclopentanophenanthrenes, processes for their preparation, and pharmaceutical compositions containing them.* Roussel-Uclaf. 1,056,055.
- Electrohydraulic processes and apparatus for initiating chemical and physical reactions* T. E. Arnold. 1,056,074.
- Process for the isolation of hydrofluoric acid from reaction gases.* Buss, A.G. 1,056,077.
- Photographic objective.* Voigtländer, A.G. 1,056,096.
- Isonicotinic acid hydrazide derivative and process for its preparation.* Laboratoires Albert Rolland. 1,056,098.
- Piperidol esters.* Smith Kline & French Laboratories, Ltd. 1,056,101.
- Enzyme-containing anti-asthmatic preparations.* William H. Rorer, Inc. 1,056,116.
- Camera shutters.* International Polaroid Corporation. 1,056,153-54.
- 17 α -trifluoropropenyl steroids and process for the preparation thereof.* British Drug Houses, Ltd. 1,056,163.
- Pharmaceutical compositions containing catalase.* Sincorep, S.A. 1,056,192.
- Production of thiocarboxylic acid esters.* M. & T. Chemicals, Inc. 1,056,193.
- Esters of corticosteroids.* Eli Lilly & Co. 1,056,198.
- Hypotensive compositions containing hydrochlorothiazide.* F. Hoffman-La Roche & Co., A.G. 1,056,200.
- Cosmetic brushes.* Eylure, Ltd. 1,056,211.
- Succinic acid derivatives, their production and uses and polymeric products made therefrom.* Monsanto Co. 1,056,221.
- Quaternary ammonium derivatives of benzotriazoles and herbicidal compositions containing them.* May & Baker, Ltd. 1,056,235.
- Dyeing of hair and other keratinous materials.* Gillette Industries, Ltd. 1,056,250.
- Flavour powders.* J. Lyons & Co. Ltd. 1,056,259.
- Esters of γ -keto carboxylic acids.* Merck & Co., Inc. 1,056,288.
- 2-Phthalimido acetamido benzophenones and their preparation.* Delmar Chemicals, Ltd. 1,056,289.
- Process for preparing sodium warfarin.* Charles E. Frosst & Co. 1,056,291.
- Insecticidal cultures of microorganisms.* Vsesojuzny Nauchno-Issledovatel'sky Institute Zashchity Rasteniy. 1,056,292.
- Production of oxides.* British Titan Products Co. Ltd. 1,056,293.
- Devices for the local scoring and marking of ampoules for breaking.* J. Dishter. 1,056,298.
- Coccidiostatic compositions.* Merck & Co. Inc. 1,056,313.
- Process for preparing glucosamine salts.* Rotto Research Laboratorium. 1,056,331.
- Therapeutically useful ranunculus extracts.* Y. Rocher. 1,056,388.
- Oxidinium and thiaiodinium compounds and compositions containing same.* Eli Lilly & Co. 1,056,418.
- Carboxylic acid piperazides and process for their manufacture.* Farbwerke Hoechst, A.G. 1,056,421.
- Amines.* American Home Products Corporation. 1,056,423.
- Method for preparing ribonucleoside-5' phosphates.* Kyowa Hakko Kogyo Co., Ltd. 1,056,428.
- Derivatives of lysergic acid.* Sandoz Patents, Ltd. 1,056,429.
- Photographic reversal process.* Eastman Kodak, Co. 1,056,454.
- Process for the production of images or printing plates.* Agfa, A.G. 1,056,472.
- Photographic processing compositions containing boron compounds.* Eastman Kodak, Co. 1,056,455.
- Medicaments containing hydroxocobalamin salts.* Laboratoires Albert Rolland. 1,056,485.
- Process for preparing trifluoroacetyl chloride.* Farbwerke Hoechst, A.G. 1,056,512.
- Method of preparing liquid infant food composition.* American Home Products Corporation. 1,056,515.
- Manufacture of chlorinated ethanes.* Imperial Chemical Industries, Ltd. 1,056,522.
- Crystalline alkaloids of mitragyna citrata and compositions thereof.* Smith Kline & French Laboratories. 1,056,537.
- Organobismuth compounds.* M. & T. Chemicals, Inc. 1,056,542.
- Quaternary ammonium compounds and preparations for combating phytopathogenic micro-organisms containing them.* CIBA, Ltd. 1,056,546.
- Manufacture of benzophenones and pyridophenones.* F. Hoffman-La Roche & Co., A.G. 1,056,579.
- Desalination membrane.* Regents of the University of California. 1,056,636.
- Fertilizers.* Toyo Koatsu Industries, Inc. 1,056,637.
- Microbiocidal paints and synthetic resin coating compositions.* Farbenfabriken Bayer, A.G. 1,056,642.
- Steroids.* Lepetit, S.p.A. 1,056,675-76.
- Apparatus for use in examining animal cells.* International Business Machines Corporation. 1,056,716.
- Pesticidal preparations.* CIBA, Ltd. 1,056,750.
- Still picture projector.* Voigtländer, A.G. 1,056,751.
- Removing nitric oxide from gas mixtures.* Badische Anilin & Soda Fabrik, A.G. 1,056,755.
- Photosensitive reproduction material.* Kalle, A.G. 1,056,774.
- Process for the manufacture of ferrophosphorus in powdered form.* Knapsack, A.G. 1,056,776.
- Iodopropargyl aralkyl ether compounds and medicinal and fungicidal composition made therefrom.* Meiji Seika Kaisha, Ltd. 1,056,787.
- British patent specifications relating to the above will be obtainable (price 4s. 6d. each) from the Patent Office, 23 Southampton Buildings, Chancery Lane, London, W.C.2, from January 25.

TRADE MARKS

APPLICATIONS ADVERTISED BEFORE REGISTRATION

"Trade Marks Journal," Dec. 7, No. 4606.

For pharmaceutical and medicinal substances and preparations for human and veterinary use (5)

FLAMATROL, 895,688, by Armour Pharmaceutical, Co., Chicago, Illinois 60611, U.S.A.

For antibiotics and antibiotic preparations (5) BIOTREN, 895,689, by Carlton Laboratories (Southern), Ltd., Lancing, Sussex.

For pharmaceutical preparations in tablet form for use in slimming (5)

SLENDERETTES, B897,196, by Clifford Hackley Richardson, London, W.1.

For veterinary preparations and substances (5) VADEVERM, 899,181, by Janssen Pharmaceutical, N.V., Beerse, Belgium.

For photographic apparatus (9) ORACA, 894,677, by Francis Canning, Edinburgh, 15.

For hair drying appliances, and parts and fittings (11)

SCHICK, B887,782, by Schick Incorporated U.K.), Ltd., Newpound, Wisborough Green, Billingshurst, Sussex.

"Trade Marks Journal," Dec. 14, No. 4607.

For chemical products for use in the manufacture of shampoos, hair dressings and cosmetics (1)

DIOCIEN, 894,466, by F. W. Hampshire & Co. Ltd., Derby and London, W.1.

For chemical substances for use in agriculture and horticulture; and seed dressings (1)

FERNA-COL, SAPHI-COL, 895,951-52, by

Plant Protection, Ltd., London, S.W.1. and Yalding, Kent.

For soaps (3) PERMINOVA FRESHY 77, 878,646, by Perminova, A.G., Zurich, Switzerland.

For toilet preparations for men (3) Device with words ROYAL OAK, B888,694, by Philip Morris, Inc., New York, U.S.A.

For soaps and detergents (not for use in industrial or manufacturing processes) (3)

PYRADET, 893,740, by Joseph Crosfield & Sons, Ltd., Warrington, Lancs.

For perfumes, eau de Cologne, cosmetic preparations, dentifrices, non-medicated toilet preparations, toilet articles, soaps and essential oils (3)

SONG OF GOLD, 896,314, by Romney Cosmetics, Ltd., Sandwich, Kent.

For soaps, cosmetics, perfumes, non-medicated toilet preparations, hair lotions, dentifrices (3)

TEENSCENE, 897,150, by E. R. Holloway, Ltd., Welwyn Garden City, Herts.

For non-medicated toilet preparations and cosmetic preparations (3)

TATTLETALE, 897,401, by Avon Cosmetics, Ltd., Northampton.

For pharmaceutical, veterinary and sanitary preparations and substances; disinfectants; infants', invalids' and dietetic foods; preparations for killing weeds and destroying vermin (5)

QUINIDEX, 876,994, by A. H. Robins Co., Inc., Richmond, Virginia, U.S.A.

For medicated preparations in liquid, cream or ointment form, for the treatment of the skin (5)

NUTRAMOIST, 885,483, by Coty (England), Ltd., London, W.1.

For medicinal and pharmaceutical preparations and substances for human and veterinary use; sanitary substances; all consisting of or containing azoles (5)

DECAZOLE, 888,412, by Merck & Co., Inc., Rahway, New Jersey, U.S.A.

For pharmaceutical preparations and substances (5)

MEDIHELP, B891,531, by Sterling-Winthrop Group, Ltd., Surbiton, Surrey. Device, 896,576, by Biofarm, S.A., Neuilly-on-Seine, France.

For pharmaceutical and veterinary preparations and substances (5)

DACORTILEN, 892,518, by E. Merck, A.G., 61 Darmstadt, Germany. DUMEXIN, 894,334, by A/S Dumex, Copenhagen S, Denmark.

For pharmaceutical preparations for the treatment of rheumatism and like ailments (5)

RHEUMALAX, 894,036, by Fyde Laboratories, Ltd., Preston, Lancs.

For pharmaceutical, veterinary and sanitary substances; disinfectants and weed killing preparations (5)

SPRAYDEX, 894,549, by Spraydex (Twynford), Ltd., Twynford, Berks.

For veterinary sheep dip preparations (5)

VETARITE, 897,588, by E. R. Squibb & Sons, Ltd., Twickenham, Middlesex.

For medicinal and pharmaceutical preparations (5)

DELADROXATE, 899,817, by E. R. Squibb & Sons, Ltd., Twickenham, Middlesex.

For shavers and parts (8)

ROAMER, 898,401, by N.P.U., Ltd., London, N.14.

For photographic and cinematographic apparatus, utensils and instruments; optical apparatus and instruments; and parts; but not including optical supports or lenses (9)

ISITAR, 895,981, by Agfa-Gevaert, A.G., Leverkusen-Bayerwerk, Germany.

For safe-light filters for use in dark rooms (9)

AGINAK, 896,063, by Gevaert-Agfa, N.V., Mortsel, Belgium.

For bottles and containers, all for feeding purposes; teats and valves, all for feeding bottles; soothers and teething rings, all for babies; surgical, medical, dental and veterinary instruments and apparatus (10) for all goods made of rubber, artificial rubber or plastics (17) for small domestic utensils and containers (not of precious metal or coated therewith); hot water bottles, etc. (21) and for bathing caps, etc. (25)

SUSEAL, 889,328-31, by William Freeman & Co., Ltd., Staincross, Barnsley, Yorks.

MATERIALS AND MAINTENANCE

Sanitary Waste Disposal Unit. — Permapure (Commercial), Ltd., 19 Highbridge Street, Waltham Abbey, Essex, draw attention to their Permapure disposer recently introduced in the field of sanitary waste disposal. The unit was developed to provide an appliance for disposal of soiled sanitary towels, bandages, medical waste, etc. A specially prepared opaque polythene container is placed into the disposer in which it is hermetically sealed by remote control.

Melting Underfoot Snow and Ice. — A chemical in granule form with the power to melt ice and snow and keep key areas clear during a spell of winter weather has been put on the market in Britain by Cooper, McDougall & Robertson, Ltd., Berkhamsted, Herts. Sold under the name Ice-Foe, the product has particular value in hospitals, old people's or children's homes, loading bays, and factory yards. Ice-Foe is claimed to generate sufficient heat to melt even compacted snow or ice. It acts best on busy surfaces and is claimed harmless to vegetation, tyres, footwear, asphalt roads or footways, and to leave no messy residues. Application is by hand, shovel or scoop. Packs are a carton of six 5-lb. sealed polythene bags and a polythene lined drum of 100 lb.



LOOKING TO THE FUTURE: "Miss World," twenty-three-year-old medical student Miss Reita Faria from India, photographed during a visit to the Greenford, Middlesex, headquarters of Glaxo Laboratories, Ltd. Miss Faria saw stages in the production of vaccines.



MISS AND "HIT": Miss Christine Storey, aged nineteen, a credit-control clerk at Woolley & Arnfield, Stockport, Cheshire, was recently, at the company's annual staff dance, elected Miss Woolley. Miss Storey, who has worked for Woolley & Arnfield since leaving school, was chosen for speech, personality, poise and appearance. She is shown being congratulated by Mr. B. Sparling (regional director, Vestric, Ltd.), with Mr. J. Bowman (branch manager), looking on.

PRINT AND PUBLICITY

Free Booklet. — Phillips Scott & Turner Co., 2 St. Marks Hill, Surbiton, Surrey, are offering in their Delrosa series of free booklets on child health a "Guide to Children's Illnesses." (Available to all stockists from January 1, 1967 until mid-February.) A four-colour strutted show-card will display the booklet at point



of sale. The 8-p. booklet is described as "sensible and practical." Its table of illnesses covers the common infectious diseases of childhood, listing symptoms, incubation and isolation periods and general advice on treatment, and urges the mother to call for medical help so soon as the signs described become apparent.



COMB CABINETS: Feature claimed by E. R. Holloway, Ltd., Olding's Corner, Hatfield, Herts, for their Barnet comb policy for 1967 is an upgrading of the quality of their display cabinets. Made of polished wood and clear Perspex, the new stand, as illustrated, "sets off to perfection" the Barnet Stylist range of nylon, polypropylene and styrene combs. All the combs are clearly seen and easily "dispensed." The cabinets take up little room on the counter but achieve excellent point-of-sale appeal. Newly packaged, the combs indicate type, name, price and guaran-

tee. Five separate "deals" are offered—three for nylon Stylist combs, one each for polypropylene and styrene. The major "deal" (cabinet No. 10) is a double-decker design holding 7 doz. ladies' coloured nylon Stylist combs in the lower portion and 5 doz. men's nylon Stylist combs in the top.

PRESS ADVERTISING

J. & J. COLMAN, LTD., Carrow Works, Norwich: Robinsons lemon barley. In *Daily Mail*, *Daily Mirror*, *Daily Express*, *Daily Sketch* and *Sun*.

LEWIS WOOLF GRIPTIGHT, LTD., 144 Oakfield Road, Selly Oak, Birmingham 29: Sof'down. In *Woman*, *Woman's Own*, *Parents*, *Baby World*, *The Baby Book*, *All About Children* and *Mother* from mid-January.

PUBLICATIONS

Booklets and leaflets

DISTRENE, LTD., Devonshire House, Piccadilly, London, W.1: "Styron 683D general purpose, high softening, high molecular weight polystyrene" (4-p. folder).

JAPANESE CAMERAS, LTD., 50 Piccadilly, Tunstall, Stoke-on-Trent: Minolta SR-T 101 single lens reflex camera (16-p. folder).

PHILLIPS, SCOTT & TURNER CO., 2 St. Mark's Hill, Surbiton, Surrey: "The Common Cold" (12-p. booklet on causes and treatment of colds and advertising Coldrex).

FISONS, LTD., Fison House, 9 Grosvenor Street, London, W.1: An outline of the world activities of the Fison group of companies (8-p. folder.)

COMING EVENTS

Items for inclusion under this heading should be sent in time to reach the Editor not later than first post on Wednesday of week of insertion.

Tuesday, January 3

EAST KENT BRANCH, PHARMACEUTICAL SOCIETY, County hotel, Canterbury, at 7.45 p.m. Business meeting.

WORCESTER BRANCH, PHARMACEUTICAL SOCIETY, Star hotel, Worcester, at 8 p.m. Mr. T. K. Bates (Polaroid (U.K.), Ltd.) on "Polaroid Cameras."

Wednesday, January 4

READING BRANCH, PHARMACEUTICAL SOCIETY, St. George's Hall, St. George's Road, Reading, at 3 p.m. Children's New Year party.

SOUTH-WEST LONDON CHEMISTS' ASSOCIATION, Ardington rooms, Clapham Junction, London, S.W.11, at 6.45 p.m. New Year party. Tickets (price 40s. each) are available from Miss B. M. Kell, 58 Beenead Avenue, London, S.W.15.

Thursday, January 5

BEDFORDSHIRE BRANCH, PHARMACEUTICAL SOCIETY, Luton and Dunstable Hospital, at 8 p.m. Discussion on the Council's proposals on advertising by pharmacists.

GLASGOW AND WEST OF SCOTLAND BRANCH, PHARMACEUTICAL SOCIETY, Room 24, University of Strathclyde, George Street, Glasgow, C.1, at 7.45 p.m. Mr. J. C. Hanbury on "Some Current Medico-pharmaceutical Problems."

HUDDERSFIELD CHEMISTS' ASSOCIATION, Park Horse hotel, Kirkgate, Huddersfield, at 7.45 p.m. Mr. C. B. Bedford on "Some Reflections on Banking."

PHARMACEUTICAL SOCIETY, INSTITUTE OF PACKAGING, Electrical engineers department, Imperial College of Science and Technology, London, S.W.7, at 6.30 p.m. "Shelf Life." M. G. A. Gordon (Printing, Packaging and Allied Trades Research Association) on "Collection of Data Relating to Conditions Inside Warehouses and Transport Vehicles" and Mr. K. Clarke (Beecham Toiletries Division) on "Methods of Testing as Applied to Toiletries and Cosmetics."

THAMES VALLEY PHARMACISTS' ASSOCIATION, Victoria hotel, Surbiton, at 7.45 p.m. Dr. J. C. Parkinson (deputy secretary, Pharmaceutical Society), on "Education, Recruitment and Man-power."

Prescribers Press

What doctors are reading about developments in drugs and treatments

PROPRANOLOL should be used with caution in patients prone to hypoglycaemia or receiving insulin or oral hypoglycaemic agents, according to papers from the Harvard Medical School, Boston, U.S.A., and Johannesburg General Hospital, South Africa. The American workers were investigating how a β -adrenergic antagonist would modify metabolic responses to hypoglycaemia during a standard insulin-tolerance test. Normally, acute hypoglycaemia evokes the secretion of several hormones, including growth hormone, hydrocortisone, adrenaline and noradrenaline, which restore plasma levels of glucose and free fatty acids. It was found in healthy subjects that propranolol did not affect the rate or extent of fall of plasma glucose during the insulin-tolerance test, but dampened its subsequent rebound, and masked some of the clinical manifestations of acute hypoglycaemia. The South African paper reports hypoglycaemic attacks precipitated by propranolol in a patient who had undergone partial gastrectomy (and showed mild post-operative hypoglycaemic symptoms), and in an insulin-dependent diabetic. (*Lancet*, December 24, pp. 1386 and 1389.)

METHOXYFLURANE is assessed as significantly better than trichloroethylene in obstetric analgesia in a report from the Welsh National School of Medicine, Cardiff. The assessment was made by the anaesthetist on the basis of the reactions and behaviour of the mothers between contractions. Twenty-one patients received trichloroethylene and twenty-five methoxyflurane. A significantly higher number of mothers on methoxyflurane said that pain relief was complete, and midwives assessed that that anaesthetic caused less restlessness, though slightly more drowsiness. The trial indicated that methoxyflurane is suitable for intermittent ad-

ministration. (*B.M.J.*, December 24, p. 1554.)

TETANUS antiserum has little value in the treatment of clinical tetanus, report workers at the Maulana Azad Medical College, New Delhi, India. They have carried out a blind controlled trial in 470 patients with proven tetanus, but have found no significant difference between the survival rates of groups given no ATS or doses of 10,000, 30,000 or 60,000 units of ATS. There were also no differences in the course of the disease, development of complications, length of stay in hospital of cured patients, or length of survival of fatal cases. (*Lancet*, December 24, p. 1372.)

CONTEMPORARY THEMES

Subjects of contributions in current medical and technical publications

METHOXYFLURANE as an obstetric analgesic: a comparison with trichloroethylene. *Brit. med. J.*, December 24, p. 1554.

FOLIC ACID REQUIREMENTS. Investigation of in pregnancy. *Brit. med. J.*, December 24, p. 1568.

FLUIDISATION in pharmaceutical manufacturing. *Manf. Chemist*, December, p. 39.

MORPHOLINE: its properties and uses. *Manf. Chemist*, December, p. 50.

ANTISERUM. A controlled trial of, in the treatment of tetanus. *Lancet*, December 24, p. 1371.

DAPSONE AND PYRIMETHAMINE. Reduction of haematocrit and red-blood-cell volume in patients with polycythaemia secondary to hypoxic lung disease by. *Lancet*, December 24, p. 1381.

PROPRANOLOL. Effects of, on the hormonal and metabolic responses to insulin-induced hypoglycaemia. *Lancet*, December 24, p. 1386.

PROPRANOLOL. Hypoglycaemia precipitated by. *Lancet*, December 24, p. 1389.

HOW ANTIBIOTICS WORK. *Science*, January 1967, p. 62.

NEW COMPANIES

P.C.=Private Company, R.O.=Registered Office, BOWDENHURST, LTD. (P.C.).—Capital £100. To carry on the business of wholesale and retail chemists and druggists, etc. Subscribers: Leonard H. Lewis and Francis A. Dean. R.O.: 6 Surrey Street, London, W.C.2.

CHEMIST MARKETING SERVICES, LTD. (P.C.).—Capital £1,000. Subscribers: Muriel Goldstein and Brian Goldstein, 25 The Glade, Ilford, Essex.

CONTAC LABORATORIES, LTD. (P.C.).—Capital £100. To carry on the business of

manufacturers of and dealers in machines, medical and other preparations, etc. First directors are not named. Solicitors: Allen & Overy, Cheapside, London, E.C.2.

E. H. BALDOCK & CO., LTD. (P.C.). Capital £1,000. To acquire the business of R. Brown (Chemists) Reading, Ltd., carried on at 266 Oxford Road, Reading, etc. Directors: Eric H. Baldock, M.P.S., and Joan P. Baldock. R.O.: Little Firs, West Drive, Sonning, Berks.

F. HYLEN (U.K.), LTD. (P.C.).—Capital £100. To carry on the business of marketers, manufacturers and general dealers in chemicals of all kinds; etc. Subscribers: Stanley H. Davis and David Ordish. R.O.: 29 Oxford Street, London, W.1.

J. N. P. CHEMICALS, LTD. (P.C.) Capital £100. To carry on the business of manufacturing chemists, etc. Directors: Paul M. Littman, John Nash-Steele. R.O.: 20 Queen Anne Street, London, W.1.

NETHERTON CHEMISTS (KIRKBY), LTD. (P.C.).—Capital £1,000. To carry on the business of chemists and druggists, etc. Directors: Hartley H. Clumpus, M.P.S. and Valerie I. Clumpus, 16 Clovelly Drive, Southport. R.O.: 13 Market Square, Kirkby, Lancs.

WILLS

MR. J. BLAIR, M.P.S., 52 Devonshire Road, Millom, Cumberland, left £7,905 (£7,805 net).

MR. E. BOYS, M.P.S., 59 Chapeltown, Pudsey, Yorks, left £7,587 (£7,516 net).

MR. G. T. CHAPMAN, M.P.S., 111 Brook Lane, Chester, left £10,860 (£10,696 net).

DR. A. CRAWFORD, M.P.S., 50 Victoria Road, Lenzie, Lanarks, left personal estate in England and estate in Scotland valued at £23,014.

MR. E. J. DOBSON, Trevean, Castle Street, Launceston, Cornwall, who qualified as a chemist and druggist in 1902 left £38,779 (£37,987 net).

MR. R. HERRINGSHAW, M.P.S., 65 Berrington Road, Nuneaton, Warwickshire, left £19,835 (£19,288 net).

MR. J. J. JOYCE, M.P.S.I., Maryville, Mallow, co. Cork, Eire, left estate in England and the Republic of Ireland valued at £15,200.

MR. R. D. LAWS, M.P.S., 66 Southwick Road, Boscombe East, Bournemouth, Hants., left £1,532 (£1,460 net).

MR. J. MAJOR, 100 Church Lane, Wistaston, Crewe, Ches, who qualified as a chemist and druggist in 1893, left £16,016 (£15,926 net).

MR. G. PENMAN, M.P.S., 67 Woodside, London, S.W.19, left £51,383 (£46,920 net).

MR. J. RANKIN, M.P.S., 5 Solihull Lane, Hall Green, Birmingham, left £1,904 (£1,722 net).

MR. R. H. SUMMERS, 9 Lewis Road, Taunton, Somerset, who qualified as a chemist and druggist in 1931, left £26,607 (£24,983 net).

COMMERCIAL TELEVISION

The information given in the table is of number of appearances and total screen time in seconds. Thus 7/105 means that the advertiser's announcement will, during the week covered, be screened seven times and for a total of 105 seconds.

Period—January 1-7, 1967

PRODUCT	London	Midland	North	Scotland	Wales & West	South	North-east	Anglia	Ulster	Westward	Border	Grampian	Eireann	Channel Is.
Anadin...	3/90	2/60	2/60	2/60	2/60	2/60	3/90	2/60	3/90	3/67	2/60	3/90	—	2/60
Askit powders and tablets	—	—	—	7/49	—	—	—	—	—	—	3/21	2/14	—	—
Bisodol	4/28	2/14	4/28	—	5/35	—	5/35	5/35	—	—	4/20	—	—	—
Buttercup syrup	—	2/30	3/60	—	—	—	—	—	—	—	2/30	—	—	—
Disprin	2/45	2/45	—	4/75	—	—	2/45	1/30	3/60	—	—	3/60	—	3/75
Hill's sore throat lozenges	—	—	3/45	—	—	—	—	—	—	—	—	—	—	—
Horlicks	4/120	4/120	5/150	2/80	4/120	4/120	4/120	6/240	3/90	—	—	4/160	1/30	5/150
Loxene shampoo	4/120	5/150	2/60	2/60	3/90	3/90	3/90	3/90	6/180	3/90	3/90	3/90	2/60	—
Mentholatum Deep Heat	2/60	3/90	2/60	3/90	3/90	3/90	4/120	3/90	3/90	3/90	4/120	4/120	—	8/240
Nulon	—	2/60	1/30	1/30	—	—	1/30	1/30	2/60	—	—	1/30	—	1/30
Ostermilk and Farex	—	—	—	6/180	—	—	—	—	7/210	—	—	—	—	—
Penetrol inhalant	—	2/14	2/14	—	1/7	—	1/7	1/7	1/7	—	—	—	—	—
Steradent	1/45	1/45	—	1/45	2/90	—	1/45	—	1/45	—	—	3/135	—	2/90
T.C.P. liquid antiseptic	2/60	2/60	2/60	3/90	3/90	2/60	3/90	3/90	3/90	2/60	2/60	3/90	—	—

Cumulative price changes

AMENDING C & D
QUARTERLY PRICE LIST
FOR DECEMBER 1966

<p>Abidon (938 PD) capsules 25 & 1000 Acutil etc (208 BW) compound linctus†7DDI 125mils 48 0 — 6 0 500mils 176 0 — 22 0 syrupts†7 125mils 48 0 — 6 0 500mils 176 0 — 22 0 2 litres 55 8ea — 83 6</p> <p>compound linctus 4oz & 20 oz — — — — syrupe 4oz & 20oz — — — — Actol (1388 Durazone) Acudex (1530 Fisons) Adcortyl-A (1176 Squibb) ophthalmic ointment Adcortyl-AQ (1176 Squibb) spray Adcortyl-EG (1176 Squibb, cream 50gm Algispray (238 CL) Algispray (1546 Sheranel) spray balm aerosol 48 0 13 2½ 6 11 Alkeran (208 B W) †s4A tablets 2 mgm 25 76 0 — 9 6 5 mgm 25 132 0 — 16 6 tablets 2 mgm & 5 mgm 100's — — — — Alloferin (1074 Roche) †s4A ampoules 10mgm/ 2mils 6 10 8ea — 16 0 50 78 0ea — 117 0</p> <p>Allonal (1074 Roche) tablets Alipryal-G (1460 Dome) treatment set 117 0ea — 156 0 Alopecinin (819 McY) †s4B pomade 1oz 15 0ea 4 1½ea 24 2 tablets 30 15 0ea 4 1½ea 24 2</p> <p>Amplex (67 Ashe) foot fresh 48 0 12 11 6 10 Ancofen (179 BDH) †s4B tablets 50 22 9ea — 34 1½</p> <p>Andre Philippe (48 AP) after shave lotion 103 33 0 9 1 4 11 bubble bath candlestick 7 33 0 9 1 4 11</p> <p>Annovax (208 BW) VPO vaccine (vet.) 50mils 17 7½ea — 23 6 250mils 82 6ea — 110 0</p> <p>Antabuse (1582 Albion) existing entry Antabuse (1582 Albion) †s4A tablets 0.5gm 25 44 0 — 5 6 50 76 0 — 9 6 500 58 0ea — 87 0</p> <p>Antas (1582 Albion) existing entry Antas (1582 Albion)† tablets 50 20 0 5 6 2 11 100 36 0 10 0 5 4 250 80 0 — 10 0 1000 264 0 — 33 0</p> <p>Antepar (208 BVV) elixir 125mils 62 0 — 7 0 500mils 192 0 — 24 9 4oz & 20oz — — — —</p> <p>Antussin (1239 Tobal) † double strength 2oz 40 6 — 4 6 4oz 67 6 — 7 6 2oz 36 0 — 4 0 children's chewable capsules 24 36 0 — 4 0 20 30 0 — 3 4</p> <p>Asmasol (1582 Albion) †s4sA inhalant solution 60mils 96 0 — 12 0</p> <p>Aspellin (1023 Radiol) aspirin spirit liniment 16oz 135 0 — 17 0</p> <p>Astral (509 Gibbs) cream small 14 3 3 11 1 11 popular 22 2 6 1 3 1 family 36 3 9 1½ 5 1 hp 94 7 26 0 13 3 soap 10 4 2 10 1 3 15 2 4 2 1 0</p> <p>Ayrton (78 A5 & Co) A.P.C. plus tablets 14 0 3 10 2 6</p>	<p>Bain d'Or (597 HCL) perfume 10cc 208 0 55 10 — soap lemons 2½oz 14 5 3 10 — Splash Cologne 100cc 121 4 32 6 —</p> <p>Band-Aid (672 Johnsons) Sheer plasters 21 3 — 2 6</p> <p>Banminth (969 Pfizer) solution (vet.) 1pt 31 6ea — 42 0 1gal 218 7ea — 291 6 20 18 9ea — 25 0</p> <p>Bell's (108 Bell) existing entry Bell's (108 Bell) pet remedies blood salts 8 9 — 1 0 21 3 — 2 6 bugdie tonic 11 0 3 0 1 6 canker lotion 18 0 4 11½ 2 6 powder 18 0 4 11½ 2 6 cough tablets (dogs or cats) 12 9 3 6 1 9 14 6 4 0 2 0 Doomdust 11 0 — 1 3 eczema ointment 18 0 4 11½ 2 6 eye lotion 18 0 4 11½ 2 6 ointment 18 0 4 11½ 2 6 gastritis tablets 12 9 3 6 1 9 Katnips powder 14 6 4 0 2 0 tablets 7 9 2 1½ 1 1 17 6 4 10 2 6 laxative tablets 9 9 2 8 1 4 Mange-Pak 21 0 5 9 2 9 Min-O-Vit B 22 0 — 2 9 36 0 — 4 6 Moulter 11 0 3 0 1 6 pet ointment 18 0 4 11½ 2 6 round worm tablets (dogs or cats) 9 0 — 1 0 sedative tablets 14 6 4 0 2 0 shampoo liquid sachet 5 0 1 4½ 10 bottle 14 6 4 0 2 0 medicated 29 0 8 0 4 0 Snowcoat (dogs or cats) 17 6 4 10 2 6 worm capsules (dogs) 14 6 4 0 2 0 tablets (dogs) (cats) 16 0 4 5 2 3 14 6 4 0 2 0 worming oil 14 6 4 0 2 0 23 6 6 5½ 3 3</p> <p>Benadryl (938 PD) parenteral (vet.) 10 mls Benemid (837 MSD) tablets 100 40 10ea — 61 3 500 196 4ea — 294 6</p> <p>Benzodent (1489 Cottrell)† Berkmycen (117 BPL T5) tablets 250 mgm 16 5 11ea — 8 10 100 32 0ea — 48 0 1000 293 9ea — 440 7</p> <p>Betnovate (518 Glaxo) T5 scalp application 30gm 12 3ea — 16 4</p> <p>Brontina (221 Camden) †s7 ampoules 2 mls 6 13 1½ea — 17 6 tablets 1mgm 100 17 3ea — 23 0</p> <p>Broval (1582 Albion) 6oz 28 0 8 0 4 2 16oz 60 0 17 0 8 11</p> <p>Burson (451 F & J) elastic hosiery lightweight pair 32 0 — 48 0</p> <p>Bydolax (859 Moore) capsules Cadum (280 CP) 5 pack minimum order toilet 47 4 12 11 11½ (6 doz) (6 doz) bath 50 10 13 10 1 7 (4 doz) (4 doz)</p> <p>Calpol (218 Calmic) paediatric suspension 2½oz 32 0 — 4 0</p> <p>Caperns (1175 SPL) Avisand 7 6 — 10 7 11 — 1 9 (½ doz)</p>	<p>bugdie seed (Golden life) 19 9 — 1 1 (2 doz)</p> <p>D bird sand D Capsolin (938 PD) lib. Carmen (229 Carmen) electric hair rollers model "7" 97 8ea 26 1ea 157 6 "11" 138 0ea 36 6ea 220 6 "17" 22 6ea 6 0ea 36 0 carry case 7/11 203 8ea 53 11ea 325 6 model "17" 203 8ea 53 11ea 325 6 "18" 203 8ea 53 11ea 325 6 carry case 17/18 24 11ea 6 8ea 39 11 roller and clip 6 7ea 1 9ea 10 6 clips packet 6 7ea 1 9ea 10 6 foam cascade 11 0ea 2 11ea 19 11</p> <p>Ceranet (1127 Seton) (distributors 93 BJ) dressings 3½ x 3½ (10) 28 6 — — (30) 50 0 — — strip 7½in x 4yd 92 0 — —</p> <p>D Cerumol (718 LAB) existing entry I Cerumol (718 LAB) † eardrops approx. 11 mls 31 6 — 3 6 dp 2oz 67 6 — 7 6</p> <p>Cholelith (938 PD) pills 500 Cidomycin (1087 Roussel) T5 cream 15gm 8 6ea — 12 9 ointment 15gm 8 6ea — 12 9</p> <p>Cinemax (817 MP5) cine cameras Super-8 C301 — — 999 6 C401 — — 1359 6 C801 — — 2399 6 projector 8GF-R5 — — 939 6</p> <p>D Citanest (68 AH) existing entry I Citanest (68 AH) plain ampoules 1% 10 mls 20 26 0ea — — 1.5% 25 mls 5 0ea — — vials 0.5% 20 mls 5 11 3ea — — 50 mls 5 2ea — — 1% 20 mls 5 12 0ea — — 50 mls 5 6ea — — with adrenaline 1-250,000 †s4B vials 0.5% 20 mls 5 11 3ea — — 50 mls 5 2ea — — with adrenaline 1-200,000 †s4B vials 1% 20 mls 5 12 0ea — — 50 mls 5 6ea — — 1.5% 20 mls 5 12 6ea — — 50 mls 5 6ea — — with adrenaline 1-300,000 †s4B Citanest '30' 1.8 mls 50 19 0ea — — topical 4% 25 mls 4 6ea — —</p> <p>Clearasil (1277 VI) After Wash 100cc 39 2 10 9 5 3</p> <p>I Clinic (509 Gibbs) medicated shampoo sachets 5 9 1 7 9 bottle 18 11 5 2½ 2 7 family 35 9 9 10 4 10</p> <p>Clomid (838 MN) tablets 30 10 0ea — —</p> <p>D Codemprin (208 BW) †DDI tablets 10</p> <p>Colgate (280 CP) 5 pack minimum order chlorophyll toothpaste standard 17 3 4 9 2 4½ large 24 8 6 9 3 5 dental cream standard 69 0 18 9 2 4½ (4 doz) (4 doz) large 49 4 13 5 3 5 (2 doz) (2 doz) ex-large 35 1 9 7 4 10 family 23 1 6 4 6 4½ (½ doz) (½ doz)</p> <p>fluoride toothpaste standard 34 6 9 5 2 4½ (2 doz) (2 doz) large 25 11 7 1 3 7 shaving cream brushless tube 21 8 5 11 3 0</p>
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the original half-volume, ideally balanced, TRIPLE ANTIGEN

TRIVAX

trade mark



BURROUGHS WELLCOME & CO. (The Wellcome Foundation Ltd.) LONDON

* DIPHTHERIA

* TETANUS

* WHOOPING COUGH

	jar	15 9 (1 1/2 doz) 17 7 (1 1/2 doz)	4 4 (1 1/2 doz) 4 10 (1 1/2 doz)																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	</
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vanail (353 DP)	20	0	5	6	3	0
ay's (683 Kay)						
(distributors 834 MWL)						
linseed compound						
2oz	14	6	4	0	1	11
6oz	29	4	8	1	3	11
atings (430 Eucryl)	36	0			4	0
ent (693 Kent)						
toothbrushes						
"De Luxe"	63	4			7	11
"Classic"	44	0			5	6
"Wessler"	60	0			7	6
ex. hard	63	4			7	11
"Park Lane" ex. hard	31	4			3	11
"Contour"	31	4			3	11
"Pedigree" ex. hard	31	4			3	11
"Harley Street"	26	0			3	3
"Olympic" nylon	22	0			2	9
"KB42" badger	52	0			6	6
denture brush						
"Clinic"	31	4			3	11
inidin Durules (68 AH)						
tablets	30	26	6ea		39	9
	100	80	7ea		120	11
odak (711 Kodak)						
Brownie 127 camera outfit	39	11ea		10	6ea	71
Instantatic camera						
outfit "25"	56	6ea		14	3ea	98
projectors						
Instantatic M70-L	845	0ea				1300
M80-L	975	0ea				1500
old models						
movie film Ektachrome II						
abition (718 LAB)						
approx. 8oz	51	0		14	2	6
approx. 26oz	150	0		42	0	20
actocalamine (324 Crookes)						
cream	50gm	28	0	7	8½	4
28gm						
potassium bicarbonate						
300mgm	1000	38	5ea			
500mgm	1000	43	2ea			
1gm	1000	84	0ea			
'Aiment (301 Coty)						
perfume cream sachet	264-20	106	9	28	8	15
ayla (1372 CCL)						
ayla (1000 PPL)						
electro-caps (1429 TL)						
lithium carbonate						
300mgm	1000	45	7ea			
potassium chloride						
500mgm	1000	40	10ea			
1gm	1000	74	5ea			
sodium bicarbonate						
500mgm	1000	36	0ea			
850mgm	1000	54	0ea			
1gm	1000	60	0ea			
2gm	1000	90	0ea			
sodium bicarbonate						
500mgm & potas-						
sium bicarbonate						
500mgm	1000	81	7ea			
sodium fluoride						
10mgm	1000	36	0ea			
sodium chloride						
250mgm	1000	37	2ea			
500mgm	1000	40	10ea			
750mgm	1000	48	0ea			
1gm	1000	74	5ea			
1-25gm	1000	90	0ea			
1-5gm	1000	93	7ea			
Leichner (749 Leichner)						
professional						
make-up kit	52	0ea		14	3½ea	92
ess (528 GM)						2
toothpaste	16	7		4	7	3
euocodin (819 McY)						
ointment	1oz	14	9ea	4	0½ea	23
evenor (1530 Fisons)						
lidochesin (1341 Willows) existing entry						
lidochesin (1341 Willows)						
plain or with						
adrenaline						
1-100,000 or						
1-200,000						
solutions with adrenaline ts4B						
injection vial						
0.5%, 1% & 2%						
20mils	6	6	9ea			9
50mils	6	11	9ea			15
250mils	12	4ea				16
ampoules						
2mils	100	27	9ea			37
5mils	50	27	9ea			37
10mils	25	27	9ea			37
20mils	6	17	8ea			23
25mils	6	17	8ea			23
cartridges						
2mils	100	22	11ea			30
topical 4% 25mils	3	7ea				5
gel 1% antiseptic						
15mils	30	0				3
2% antiseptic						
15mils	30	0				3
imits (1552 UL)						
plain chocolate meal	20	3		3	4½	2
ipostabil (894 Nicholas)						
capsules	60	136	0	37	5	20
ocobial (1123 SLL)						
(distributors 1556 Farillon)						
nasal spray nebuliser						
15mils	7	0ea				10
pressurised aerosol						
see L.P. Aerosol						

Locasol (1249 Trufood)	14oz	100	0		10	6
	3lb	314			32	9
D Lucifen (1310 WVV) tablets 25mgm						
I Lustre Dent (280 CP) 5 pack minimum order						
standard	33	2	9	0	2	3½
large	24	0	6	7	3	4
(1 doz)	(1 doz)					
Lynoral (917 Organon)						
tablets 0.01mgm 25						
0.02mgm 25						
0.05mgm 25						
0.1mgm 25						
1.0mgm 25						
Mayala (664 LS & C)						
cuticle cream	120	0	33	0	18	0
scientific hardener						
discovery pack	33	8	9	3	5	0
I Mellow Blossoms (280 CP) 5 pack minimum order						
toilet soap (4)	42	8	11	7	1	1½
(1 gross)	(1 gross)					
I Melody (412 Elida)						
hair colourant	45	1	12	5	6	8
Menformon (917 Organon)						
tablets 0.1mgm 25, 100 & 500						
0.3mgm 25						
1.0mgm 25						
5.0mgm 25						
Mennen (525 Golden)						
Cologne	59	0	16	3	8	9
Mentaxol (509 Gibbs)						
toothpaste						
standard	17	9	4	10½	2	4
large	25	2	6	11	3	5
I Merveilleuse (Rigaud) (47 Anestran)						
perfumed Cologne						
standard	4oz	26	6ea	7	4½ea	53
8oz	43	6ea	11	11ea	88	0
3oz	38	6ea	10	7ea	78	0
spray	3oz	23	6ea	6	5ea	47
refill						
Methyltestosterone (917 Organon)						
Sublings 5mgm 25						
10mgm 25						
50mgm 25						
D Milontin (938 PD)						
Kapicals 0.25gm 500						
D Minafen (1249 Trufood)						
16oz 301	0			33	6	
3lb 885	0			98	3	
Minivite (727 Lane)						
capsules	64	96	0		12	6
Minolta (667 JCL)						
camera 16MG					703	1
Miranda (817 MP5)						
camera "FVT"					1599	9
case					86	3
Sensorex					1999	6
case					135	6
D Monica Smart (856 M5C) existing entry						
I Monica Smart (856 M5C)						
deodorant (roll ball)	28	4	7	8	4	6
eyebrow pencil	9	5	2	7	1	6
face powder	15	8	4	4	2	6
lipstick	31	5	8	7	5	0
skintone foundation	70	8	19	4	10	0
talcum	33	0	9	0	5	6
Morny (862 Morny)						
beauty bath foam					13	6
Morthea (1305 WVB) ts1DD						
ampoules No. 1	100	94	0ea		126	0
Muguet des Bois (301 Coty)						
perfume cream sachet	264-60	106	9	28	8	15
Mydrilate (1305 VVB)						
solution 0.5%						
12x5mils	44	0ea			66	0
1%						
12x5mils	48	0ea			72	0
D Neo-Hepatex (394 DF)						
D Neo-Hombreol (917 Organon)						
ampoules 25mgm 3						
50mgm 3						
100mgm 3						
D Neosporin (208 BW) TS						
eye drops 5mils	60	0			7	6
Nu-soft (810 Maw)						
cotton wool puffs	36	0			1	6
(3 doz)						
I Nutrilite (509 Gibbs)						
31	4		5	3	2	8
31	4		8	7½	4	4
Old Spice (1131 Shulton)						
body talcum lime						
3540	78	6	21	7	12	6
deodorant aerosol lime						
3576	84	0	22	6	12	8
I Optone (690 Keldon)						
eye drops large	37	5	10	1	5	0
D Oradexon (917 Organon)						
tablets 0.5mgm 30						
0.75mgm 30						
D Ortho-Novin (922 Ortho) ts4B						
calendar pack	21	70	0		8	9
20						
D Otrivine-Antistint (262 CIBA)						
eye drops 10mils	60	0			7	6
D Ovestin (917 Organon)						
injection 1mgm 2						
D Ozoline (927 OL)						
DDT spray	32oz	46	0		5	6
1gal	168	0			21	0
aerosol	12oz	46	0		5	6
aerosol	6oz					
sprayers						

	Ozolo (927 OL)					
	healthy pine 160oz	125	0	—		12 0
D	6oz	—				—
D	Ozonol (927 OL) existing entry					
I	Ozonol (927 OL)					
	air purifiers	57	0	3 0		7 0
	refill	30	0	—		3 6
	channel hygiene					
	block	9	0	—		1 0
	pine air	56	0	2 5		6 11
	refill	34	0	—		4 0
I	Ozzo (927 OL)					
	air fresh aerosol					
	8oz	28	0	—		3 6
	12oz	44	0	—		5 6
	telephone hygiene					
D	4oz	54	0	—		6 0
D	air fresh aerosol					
D	6oz	—		—		—
D	Penspek (378 Dista)					
D	Penspek Sulpha (378 Dista)					
I	Palmolive (280 CP) 5 pack minimum order					
	after shave lotion	17 7	4 10			4 10
	(½ doz)	(½ doz)				
	pre-electric shave	17 7	4 10			4 10
	(½ doz)	(½ doz)				
	rapid shave	21 11	6 0			6 0½
	(½ doz)	(½ doz)				
	shampoo	24 4	6 8			3 10
	shave cream lather or					
	brushless tube	21 8	5 11			3 0
	15 9	4 4				4 4
	(½ doz)	(½ doz)				
	jar	17 7	4 10			4 10
	(½ doz)	(½ doz)				
	shaving stick refill	11 2	3 1			1 6½
	soap green regular	47 4	12 11			11½
	(6 doz)	(6 doz)				
	bath	50 10	13 10			1 7
	(4 doz)	(4 doz)				
	family	31 7	8 7			1 11½
	(2 doz)	(2 doz)				
	gold regular	56 6	15 5			1 2
	(6 doz)	(6 doz)				
	bath	59 3	16 1			1 10
	(4 doz)	(4 doz)				
I	Pandora (1590 Setatome)					
I	(distributors 845 GM)					
I	Panolog (1176 Squibb) T5VPO					
	ointment (vet.) 5cc	6	6ea	—		9 9
I	Parador (430 Eucryl)					
	spray	13	6	—		1 6
I	Pardale (346 Dales) T51DDI					
	paediatric elixir					
	50mils	4	0ea	—		—
	250mils	12	0ea	—		—
I	Paris (301 Coty)					
	perfume cream sachet					
	264-80	106	9	28 8		15 9
D	Parke-Davis (938 PD)					
D	adrenaline in oil 6					
D	casarca evacuant 80 oz					
D	glutamic acid tablets 0.5gm					
D	glycerine suppositories adults					
D	rutin tablets with vit. C 25					
D	tuberculin tablets P.P.D.					
D	typhoid-paratyphoid A & B 1.5 mils					
I	Pears (509 Gibbs)					
	baby powder	16	11	4 8		2 4
	transparent soap	9 2	2 6½			1 1
	13 4	3 8				1 7
I	Penidural (1352 Wyeth) T5					
	oral suspension 250 mils					
I	Pepsodent (509 Gibbs)					
	toothpaste					
	standard	17	2	4 8½		2 3
	large	24	7	6 9		3 4
	economy	32	9	9 0		4 5
D	Pernaemon (917 Organon)					
	fort ampoules 1 mil 3					
I	Pernomol (718 LAB)					
	chilblain paint	19	0	5 6		2 11
I	Personna (438 ER)					
	wall-clip shaving set	84	6	23 4		12 6
	shaving brush					
	bristle No. 40	45	4	12 6		6 0
	No. 42	63	0	17 4		8 6
I	Petronet (1127 Seton)					
	(distributors 93 BJ)					
	dressing strip					
	3½ in x 8yd	72	0	—		—
I	Philips (977 PE)					
	hand hair dryer					
	HK4100	47	7ea	12 9ea		76 2
I	Photopia (980 Photopia)					
	exposure meter	—		—		39 6
	Accurette					
I	Pifco (983 Pifco)					
	electric blanket					
	Nitetime single					
	6401	53	1ea	14 3ea		85 0
D	Razorlite mirror					
	1648	17	5ea	4 8ea		27 11
I	Pin-up (412 Elida)					
	home perm end-curl	38	2	10 6		5 7
	full-head	58	6	16 1		8 8
D	Plantoids (430 Eucryl)					
	chrysanthemum, rose,					
	sweet pea, dahlia.					
D	indoor					
I	Plus (1565 P. Plus)					
	flashgun					
	sunblitz 1000	—		—		161 9
I	Polyantibiotic (1263 Upjohn) T5					
	aerosol (vet.)					
	110gm	30	0ea	—		45 0

D	Polybactin (218 Calmic) TS				D	Spratts (1175 SPL)				D	Voss (1169 GS&S)				D	White Fire (544 Grossmith)				D	Xylocaine (68 AH) existing entry			
	cream	15gm	7	6ea		meat kennel size					bath oil	sachet	7	0		1	11	1						
I	H.C. cream	15gm	11	6ea	Ster-zac (626 HH & C) existing entry				Ster-zac (626 HH & C)					22-bath	86	0	23	8	12					
	Polyasil (1263 Upjohn) (vet.)	12x1oz	34	0ea	anti-bacterial soap				squeeze pack 14oz dispenser pack	4	8ea	1	3ea	45-bath	168	0	46	2½	25					
D	Ponstan (938 PD)	Kap seals 125mgm	25 & 250						16oz	10	0ea	2	9ea											
	Potaba (521 Glenwood)	capsules	240 48 9ea	65 0					1 gall	26	8ea	7	4ea											
D	Envules	tablets	1000 184 2ea	245 6					bath concentrate															
	tablets	120 21 4ea	1000 148 2ea	72 0					sachets 50x3mils	14	6ea													
D	Pregnyl (917 Organon)	ampoules 100iu 3		28 6					12x1oz	11	6ea													
	Pretty Poodle (927 OL)	dog shampoo 4oz	24 0	197 6					144x1oz	120	0ea													
D	Procelium (1530 Fisons)	ointment							500mils	10	6ea													
	Progestin (917 Organon)	ampoules 10mgm 3, 12 & 25							2 litres	36	0ea													
D	Progesterol (917 Organon)	tablets 5mgm 25							cream	2oz	22	0	5 9											
	tablets 10mgm 25								1 lb	9	0ea	2	6ea											
D	Prosol (1249 Trufood)	16oz 81 0		8 6					powder	30gm	13	9												
	3lb 230 8			24 0					8oz	32	3													
D	Prurex (1530 Fisons)								skin cleaner	150mils	4	4ea	1 2½ea											
	Quadrillin (518 Glaxo)								1 gall	50	0ea	13	9ea											
D	Quixalud (1176 Squibb)	dispersable powder (vet.)	240gm 25 0ea	37 6					soap wrapped	10	3	2	10											
	Radiomulsin (179 BDH)	115mils 38 0		4 9					unwrapped	85	0	23	4											
D	Regula (980 Photopia)	flash unit AG		39 6					(1 gross)			(1 gross)												
	Remiderm (1176 Squibb)	cream (vet.)		5 3					Streptaqueine (378 Distal)															
D	Reserpinal (238 CL)	TSVPO 5gm	42 0	5 3					cartridges															
	Ricoh (817 MP5)								1-0gm/2mils	5														
D	Ricoh (565 Hanimex)	projector		950 0					Streptotriad (971 PSMB) †s4B															
	Rinural (1310 VV) †DDI	linctus 125mils	56 0	15 0	8 3				granules 60mils	48	0			6 0										
D	Robitussin A-C (1071 Robins) †s7DDI	20oz	38 4ea	57 6					Supersoft (563 Hampshire)															
	Roxy (928 Pad)								Close-up deodorant aerosol	37	1	10	2	5 0										
D	Roxy (555 Haffenden)	bathing caps	52 0	5 2½	6 11				Tabano (718 LAB)															
	rubber gloves	28 6	3 2	3 11	4 11				anti smoking pastilles	54	0			6 9										
D	Rozalex (1088 Rozalex)	No. 1 unperfumed							Tabloid (208 BVV)															
	lanolin skin cream	23 3	6 4½	3 3					quinidine sulphate 0.2gm	100	60	0ea		90 0										
D	Rubrafer Improved (1176 Squibb)	(vet.) vial 50 dose	45 0ea	67 6					Tackie (280 CP)															
	Ruelene (1263 Upjohn)	concentrate (vet.)							medicated gel	36	4	9 11	5 0											
D	Rynabond (1530 Fisons) †s7	tablets	30 108 0	29 8½	16 0				Taka-diastase (938 PD)															
	Sanette (927 OL)	fragrant air	11 6	1 4					pepsin compound tablets 25															
D	Sanitas (1102 Sanitas)	powder (sprinkler)	18 0	2 0					T.C.P. (1552 UL)															
	floor polish								ointment	16	6	4 6½	2 2½											
D	moth tablets								Tersavid (1074 Roche) tablets															
	soap Windor & buttermilk								Tidman's (1235 Tidman)															
D	toilet paper								table sea salt 12oz	26	6			2 11										
	Sankyo (1343 DW)	projector Dualux		990 0					5 lb 117 6					12 11										
D	Selto (1125 Selto) existing entry								Tonic Sweets (1559 TS) existing entry															
	Selto (1125 Selto)	dental salt	16 7	4 6½	2 4				I Tonic Sweets (1559 TS)															
D	Schick (1115 SI)	electric shavers							(distributors 1545 Vestric)															
	Cordless 220E 184 8ea	49 6ea	304 2						barley fruits, barley sugar, butter pieces, horehound candy, malted milk, milk and butter, milk coffees	10 8		1 9	1 3											
D	Super 3-speed	233W 135 4ea	36 3ea	222 11					barley fruit lollies	14 0		2 3½	2											
	hairdryer Carousel	312 113 10ea	30 6ea	182 3					blackcurrant sticks	16 9		2 9½												
D	Score (172 BMCL)	hair dressing 38gm	22 6	5 4	3 0				Top C (727 Lane)															
	80gm	36 2	9 6	4 11					vitamin health drink 12oz	37	6	6 2	4 6											
D	Slenda (1564 JR&S)	low calorie drink 20oz	24 3	3 7	2 9				Trilocal (394 DF) TS cream	15gm	45	0												
	Solupen (378 Distal)	mega units 0.2x5							Trombovar (93 BJ) existing entry															
D	Sorbidel (1531 Delandale)	(distributors 1077 Rona)							I Trombovar (93 BJ)															
	Sovol (235 Carteret)	tablets	21 9	6 0	2 11				ampoules 2cc	10	32	5ea	8 11ea											
D									multivital 25 mls	1	31	2ea	8 7ea											
									12 374 0ea	102	10ea													
D									U.F.I. (1166 Southon)															
									aerosols 10gm	12	0ea	3 4ea	21 4											
D									20gm	16	0ea	4 5ea	28 5											
									Un Air Embeau (Rigaud) (47 Anestan)															
D									perfume standard	1oz	9 9ea	2 8ea	19 9											
									de-luxe	1oz	25 0ea	6 10ea	50 6											
D									super de-luxe	1oz	36 0ea	9 11ea	73 0											
									spray	1oz	50 0ea	13 9ea	101 3											
D									refill	1oz	47 6ea	13 9ea	96 3											
									toilet water standard	1oz	66 0ea	18 2ea	133 9											
D									spray	1oz	156 0ea	43 0ea	316 0											
									refill	1oz	18 0ea	5 0ea	36 6											
D									toilet water standard	2oz	19 0ea	5 3ea	38 6											
									4oz	30 0ea	8 3ea	60 9												
D									8oz	54 0ea	14 10ea	109 4												
									32oz	260 0ea	71 6ea	526 6												
D									spray	3oz	39 0ea	10 9ea	79 0											
									refill	3oz	23 6ea	6 5ea	47 6											
D									Varico (1127 Seton)															
									(distributors 93 BJ)															
D									leg bandage 3in x 3yd	8	6ea		12 9											
									Vetzyme (978 PYP)															
D									cream shampoo 2oz	15	0	4 2	2 2											
									4oz	26	0	7 2	3 9											
D									13oz	56	0	15 5	8 3											
									1/2 gall	26	0ea	7 2ea	45 6											
D									1 gall	44	0ea	12 1ea	77 0											
									Vionate (1176 Squibb)															
D									6 x 1/2 lb	22	0		30 0											
									2 lb	20	0ea		30 0											
D									Vionate-L (1176 Squibb)															
									10 lb	80	0ea		120 0											
D									50 lb	333	4ea		500 0											
									V.I.P. (430 Eucryl)															
D									baby pants	31	6		3 6											
									baby cream															
D																								
D																								
D																								
D																								
D																								

med $\frac{1}{16}$ -in or $\frac{1}{8}$ -in	21 10ea	—	30 7
lyd	42 3ea	—	59 0
thick $\frac{1}{16}$ -in or $\frac{1}{8}$ -in	27 6ea	—	38 6
lyd	53 6ea	—	74 11
compressed			
very thin $\frac{1}{16}$ -in	12 10ea	—	18 0
lyd	24 3ea	—	34 0
thin $\frac{1}{16}$ -in or $\frac{1}{8}$ -in	17 9ea	—	24 10
lyd	34 0ea	—	47 7
med $\frac{1}{16}$ -in or $\frac{1}{8}$ -in	24 0ea	—	33 7
lyd	46 9ea	—	65 6
thick $\frac{1}{16}$ -in or $\frac{1}{8}$ -in	29 7ea	—	41 5
lyd	57 9ea	—	80 10
felts, small pieces soft or semi-compressed			
thin small 4in x $3\frac{1}{2}$ in	13 9	—	1 7
med 4in x 4in	13 9	—	1 7
thick 3in x 3in	13 9	—	1 7
thin large 6in x 6in	27 6	—	3 2
med 6in x $4\frac{1}{2}$ in	27 6	—	3 2
thick 4in x $4\frac{1}{2}$ in	27 6	—	3 2
med unsprad 4in x 3in	12 0	—	1 5
felt pads, soft, semi-compressed or compressed			
O.5. oval			
thin $\frac{1}{16}$ -in $2\frac{1}{2}$ in x $2\frac{1}{2}$ in	40 10	—	57 2
gross		—	gross
thick $\frac{1}{16}$ -in	50 8	—	71 0
gross		—	gross
long oval			
thin $\frac{1}{16}$ -in $3\frac{1}{2}$ in x 2in	44 8	—	62 6
gross		—	gross
thick $\frac{1}{16}$ -in	57 4	—	80 3
gross		—	gross
extra large oval			
thin $\frac{1}{16}$ -in $2\frac{1}{2}$ in x $1\frac{1}{2}$ in	35 0	—	49 0
gross		—	gross
thick $\frac{1}{16}$ -in	44 8	—	62 6
gross		—	gross
heart shape			
thin $\frac{1}{16}$ -in 2in x $1\frac{1}{2}$ in			

27 10	—	39 0	
gross		gross	
thick $\frac{1}{16}$ -in	35 0	—	49 0
gross		gross	
extra large oval			
thin $\frac{1}{16}$ -in $2\frac{1}{2}$ in x $1\frac{1}{2}$ in	29 0	—	40 7
gross		gross	
thick $\frac{1}{16}$ -in	36 0	—	50 5
gross		gross	
large oval			
thin $\frac{1}{16}$ -in $2\frac{1}{2}$ in x $1\frac{1}{2}$ in	27 10	—	39 0
gross		gross	
thick $\frac{1}{16}$ -in	36 0	—	50 5
gross		gross	
large round			
thin $\frac{1}{16}$ -in $2\frac{1}{2}$ in diameter	39 9	—	53 8
gross		gross	
thick $\frac{1}{16}$ -in	49 7	—	69 5
gross		gross	
fleecy weblight material			
16in wide lyd 16 4ea	—	22 11	
Foam-O-Felt			
thin $\frac{1}{16}$ -in	26 9yd	—	37 6
med $\frac{1}{16}$ -in	32 0yd	—	44 10
Polyfoam			
thin $\frac{1}{16}$ -in	19 9yd	—	27 8
med $\frac{1}{16}$ -in	26 3yd	—	36 9
sponge rubber			
spread, flexible cloth			
18in wide lyd 7 0ea	—	9 10	
straps, 18in long			
1in wide	30 6	—	42 9
gross		gross	
1 $\frac{1}{2}$ in wide	37 6	—	52 6
gross		gross	
1 $\frac{1}{2}$ in wide	43 0	—	60 3
gross		gross	
stockinettes 12in wide			
lyd 13 0ea	—	18 3	
zinc oxide plaster			
1in 5yd 14 3	—	1 8	
1in N.H.S.	17 6	—	2 0
1in	23 6	—	2 9
1in N.H.S.	26 3	—	3 0
1in	35 9	—	4 2
2in N.H.S.	43 9	—	5 2
2in	49 0	—	5 9
3in N.H.S.	59 0	—	6 11
4in	72 0	—	8 4

1in	10yd 23 6	—	2 9
1in	26 3	—	3 0
1in	33 3	—	3 11
1in	40 6	—	4 9
1 $\frac{1}{2}$ in	54 6	—	6 4
2in	68 9	—	8 0
2 $\frac{1}{2}$ in	88 9	—	10 4
3in	97 0	—	11 1
4in	125 6	—	14 8

D Zynocin (378 Dista) lozenges

AMENDMENTS TO KEY TO SUPPLIERS

- 108 Bell=Bell & Sons, Ltd., Link Road, Huyton, Liverpool. Huyton 6206.
- 265 Clairol=Clairol, Ltd., Stamford House, Station Road, Langley, Bucks. Slough 43261.
- 412 Elida=Elida, Ltd., P.O. Box I.D.Y., 43 Portman Square, London, W.1. Hunter 1200.
- 461 FL=Fibrenyle, Ltd., Skylon House, Gosford Road, Beccles, Suffolk. Beccles 2442.
- 509 Gibbs=Gibbs Proprietaries, Ltd., P.O. Box I.D.Y., Hesketh House, Portman Square, London, W.1. Hunter 1200.
- 817 MP5=Mayfair Photographic Suppliers, Ltd. Hempstalls Lane, Newcastle, Staffs. Newcastle 65131.
- 839 Mesco=Mesco Laboratories, Ltd., 10 Holywell Lane, London, E.C.2. Shoreditch 2185.
- 1117 Scrivens=Scrivens, Ltd., Daimler House, Paradise Street, Birmingham, I. Midland 7975.
- 1412 Jackel=Jackel & Co., Ltd., Kitty Brewster Estate, Blyth, Northumberland. Blyth 2696.
- 1531 Delandale=Delandale Laboratories, Ltd., 24 Kilburn High Road, London, N.W.6.
- 1564 JR&S=James Robertson & Sons, Ltd., 138 Bromley Road, London, S.E.6. Hither Green 1131.
- 1570 BN=Baby Needs, division of Jackel & Co., Ltd. Kitty Brewster Estate, Blyth, Northumberland. Blyth 2596.

THIS WEEK'S CHANGES

Prices are given in the sequence Trade Price per Doz.; Purchase Tax per Doz.; Retail Price. Bold upright figures (2 9) in the retail price column indicate that the price is subject to resale price maintenance; italic figures (2 9) that it is recommended by the manufacturers; and light upright figures (2 9) that it is "notional" as a guide to the retailer in determining his own retail price.

Airbron (179 BDH)				
ampoules 2 mils 25	84 0ea	23 1ea	—	
vial 10 mils	3 49 10ea	13 8 $\frac{1}{2}$ ea	—	
30 mils	3 142 0ea	39 0 $\frac{1}{2}$ ea	—	
Akineton (708 Knoll) existing entry				
Akineton (708 Knoll)				
ampoules	6 48 0	—	5 4	
tablets	30 17 0ea	—	22 8	
	20 42 0	—	4 8	
	50 85 0	—	9 5	
	200 23 6ea	—	31 4	
Arpege (730 Lanvin)				
perfume $\frac{1}{2}$ oz	—	—	51 6	
handbag spray	—	—	77 0	
refill	—	—	62 0	
toilet water 2oz	—	—	46 0	
veil of Arpege 3oz	—	—	39 0	
6oz	—	—	39 3	
	—	—	66 0	
Betnelan (518 Glaxo)				
tablets 0.5mgm 30	—	—	—	
Betnesol (518 Glaxo)				
cream 5gm	—	—	—	
Betnesol-N (518 Glaxo)				
cream 5gm	—	—	—	
Bromural (708 Knoll) ts4B				
tablets 200 17 4ea	—	23 1	—	
Brontisol (221 Camden)				
metred dose aerosol 16 6ea	—	—	—	
Calcium-Diuretin (708 Knoll)				
tablets 200	—	—	—	
Calvert's (219 Calvert)				
Calvert's (331 C of C)				
Calvex (219 Calvert)				
Calvex (331 C of C)				
Cardiazol ephedrine (708 Knoll)†				
ampoules 1-1 mil S 56 0	—	6 3	—	
Coopers (295 C.M. & R.)				
Fresh-air				
bouquet 29 3	—	3 3	—	
floral 29 3	—	3 3	—	
Crescendo (730 Lanvin)				
perfume $\frac{1}{2}$ oz	—	—	51 6	
handbag spray	—	—	77 0	
refill	—	—	62 0	
toilet water 2oz	—	—	46 0	

Cyprol (878 Napp)†				
cough syrup 4oz 46 0	—	5 2	—	
16oz 136 0	—	15 2	—	
80oz 46 8ea	—	62 3	—	
Dento (219 Calvert)				
Dento (331 C of C)				
Dolalgin (971 P5MB) ts1s4A				
tablets 50 60 0	—	7 6	—	
500 40 0ea	—	60 0	—	
Dorothy Gray (38S DG)				
beauty foam 61 0	16 9	9 6	—	
Econmycin (1515 CD) TS				
tablets/capsules 100 58 6ea	—	—	—	
500 287 6ea	—	—	—	
1000 565 0ea	—	—	—	
Esoban (1166 5 outhon)				
with ichthyol 4oz and 80oz	—	—	—	
Four Arrows (219 Calvert)				
Four Arrows (331 C of C)				
Fullers (1246 TP & T)				
Fullers (3 Abel)				
Glycologne (133S Wigglesworth)				
hand jelly 11 3	3 1	2 3	—	
Glyped (649 ICI)				
cream 11 3	3 1	2 0	—	
Goulds (133S Wigglesworth)				
baby powder 11 3	3 1	2 0	—	
Jordan (1372 CCL)				
Jordan (173 Britanol)				
toothbrushes adult 26 6	—	3 3	—	
junior 18 0	—	2 3	—	
Lanvin (730 Lanvin)				
coffret (3 bottles) —	—	138 0	—	
(4 bottles) —	—	138 0	—	
Medihaler-bron (1061 Riker)†				
200 dose 10 0ea	—	15 0	—	

A = Price Advanced
R = Price reduced
• = New entry
D = Delete
C = Correction
I = Insert

D 300 dose	—	—	—	
My Sin (730 Lanvin)				
perfume $\frac{1}{2}$ oz	—	—	46 0	
handbag spray	—	—	63 0	
refill	—	—	55 0	
toilet water 2oz	—	—	39 6	
Odol (314 Cranbux) existing entry				
Odol (314 Cranbux)				
(distributors 528 GM)				
mouthwash 45cc 27 9	7 8	3 10	—	
85cc 48 6	13 4	6 8	—	
toothpaste 61gm 18 2	4 11	2 6	—	
107gm 32 8	8 11	4 6	—	
Olympus (1343 DW) existing entry				
Olympus (1343 DW)				
cameras				
35 LE 0097	—	990 0	—	
35 LC 0115	—	790 0	—	
case 0106	—	74 6	—	
Pen F. f2.8 0093	—	990 0	—	
f1.8 0005	—	1190 0	—	
f1.4 0083	—	1375 2	—	
Pen FT. f1.8 0031	—	1500 0	—	
f1.4 0032	—	1777 6	—	
f1.2 0033	—	2176 3	—	
soft case 0080	—	74 6	—	
hard case 0114	—	107 6	—	
Quickmatic				
f3.5 0098	—	357 0	—	
f2.8 0091	—	420 0	—	
EEM 0017	—	590 0	—	
puch case 0111	—	35 0	—	
Paracodin (708 Knoll) s1DD1				
tablets 20 39 0	—	4 4	—	
Piriton (34 A & H) ts7				
tablets 4mgm 500 60 10ea	—	91 3	—	
Sankyo (1343 DW)				
cameras				
Super CM	—	1190 0	—	
Super 5X	—	1391 6	—	
Super SCM	—	1590 0	—	
case	—	96 4	—	
Sarakan (1105 Sarakan)				
toothpaste 32 0	8 10	4 9	—	
Scandal (730 Lanvin)				
perfume $\frac{1}{2}$ oz	—	46 0	—	
3oz	—	63 0	—	

handbag spray	—	—	55 0
refill	—	—	39 6
toilet water 2oz	—	—	32 0
• Seclophen (518 Glaxo)			
D Sevilan (1372 CCL)			
I Sevilan (580 DH & Co.)			
D Silma (1343 DW) existing entry			
I Silma (1343 DW)			
projectors standard 8			
120 M	—	—	790 0
240 S	—	—	1990 0
case	—	—	110 0
projectors Super 8			

120 M	—	—	799 6
240 S	—	—	1990 0
case	—	—	110 0
• Sof'down (1349 LW)			
tie-pants (4)	32 3	—	1 11
(2 doz.)			
• Stelazine (1153 SKF) †s4B			
Spansule capsules			
10mgm	100 45 4ea	—	68 0
D Strepolin (S18 Glaxo)			
50% packs			
I Tussobron (1335 Wigglesworth)†			
syrup 4oz 30 0	—	—	5 0

• Zal (1480 Izal)									
disinfectant	1gall	12	6ea	—	17				
	10gall	—	—	—	—				

AMENDMENTS AND ADDITIONS TO KEY TO SUPPLIERS

582 Haywood = J. H. Haywood, Ltd., Abbeyfield Road, Lenton Lane, Nottingham. Nottingham 82581.
1105 Sarakan = Sarakan Products, Ltd., 88 Harley House, Regents Park, London, N.W.1.

Birmingham • Bournemouth • Leeds • Liverpool • Cardiff • Bristol

ORRIDGE & CO.

CHEMISTS' STOCKTAKERS

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